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"O FORTUNATOS NIMIUM SUA SI BONA NORINT
"AGRICOLAS." . . . . . *Virg.*

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FARM WORK FOR SEPTEMBER.

ON THE CULTIVATION OF WHEAT, RYE, TIMOTHY —DRAINING, &C.—THE FALL EXHIBITION.

As introductory to our labor of this month, we have but a remark or two to make: We desire to call the attention of the *farmers* and *planters* of MARYLAND, and *neighboring States*, to the fact, that the FAIR OF THE MARYLAND STATE AGRICULTURAL SOCIETY, will be held in Baltimore, on the 10TH, 11TH and 12TH DAYS OF OCTOBER, PROXIMO.

The constitution of this distinguished association, as liberal as the motives of its founders are patriotic. *It admits the agriculturists from every State in the Union to become members, and competitors for premiums.* This is in the true catholic spirit of an enlarged and enlightened patriotism—it seeks to do good in the genuine feeling of true brotherhood —it restricts its blessings to no contracted geographical lines, but with a wise forecast and far reaching philanthrophy, offers its generous embrace to all. This is worthy of the age, worthy of the noble example set us by our pilgrim sires, worthy of the agriculturists of our State, and cannot fail to draw thousands hitherward. And as such will be the case, we call upon all engaged in cultivating the earth, who may not be prevented by distance, not only to come, but to bring with them the products of their households, of their fields,—and specimens of their flocks and herds. To the LADIES we hardly need appeal; for in their noble pride of sex—in their love for their husbands, fathers and brothers, and in their devotional love of country, we have every guaranty that they will do their whole duty.

Turn we now to what should be attended to

ON THE FARM.

RYE.

Those who may not have got in their rye, should make it a point of duty to get it in as early this month as possible, and, unless the soil be in good heart, they should be sure to treat it to a dose of such manures as will afford it the peculiar kinds of food upon which it delights to feed. In the analysis of 1000 lbs. of the grain and straw of rye, the following were found to be their constituent elements, viz:

Potash and Soda,	5.75
Lime,	3.00
Magnesia,	1.09
Alumina,	0.91
Oxide of Manganese,	0.34
Silica,	24.61
Sulphuric Acid,	1.93
Phosphoric Acid,	0.97
Chlorine,	0.26

Such being the inorganic constituents of Rye, we can very readily conclude that, by applying 10 bushels of ashes, 10 bushels of lime, 10 lbs. of Epsom Salts, 5 bushels of bones, 1 bushel of plaster and 1 bushel of salt, per acre, a good crop of rye, even upon soils considered thin, may be reasonably calculated upon, and that a marked improvement of the soil, looked for. These substances, of course, are to be thoroughly shovelled over and well mixed before being used. It should be sown broadcast just before the ground is seeded, and harrowed in with the seed. In the above compost we have increased the quantities of lime, ashes and bone-dust to what we recommended last month, in order that, besides securing a good crop of rye, the improvement of the soil itself may be measurably increased: and we have added Epsom Salts, with the view of furnishing the requisite quantity of magnesia, and, with this explanation, we shall content ourself by referring the reader to our remarks in the last number, for information as to the mode of preparing the land, culture, &c.

WHEAT.

The importance of this, one of the greatest staple crops of our country, cannot be appreciated too highly. In a large portion of the States, it is *the* money crop of the farmer, while everywhere throughout our almost illimitable boundaries, it is the most favorite breadstuff. In view of these facts, it is necessary that pains should be taken in its culture, and the more especially is such the case, inasmuch as the grain is liable to numerous diseases and casualties, which curtail its products, and blight and disappoint expectations which were reasonably presumed to be well grounded. What is termed *winter-killing* is an evil, whose ill effects we believe may be greatly lessened through the agency

of *subsoil ploughing*, as an auxiliary to the ordinary ploughing given to wheat grounds. By loosening the earth some six or eight inches beneath the upturned soil, the water which falls upon the surface is enabled to descend beneath the reach of the young roots of the wheat plants, and thus are they, to some extent, protected against the uprooting effect consequent upon the expansion and contraction of sudden freezings and thawings of that portion of the soil immediately subject to the atmospheric influence. It seems reasonable to us, that the less the degree of moisture or wet which exists in the immediate vicinity of the roots of the wheat plants, the less danger there is of their being thrown out by sudden transition from cold to heat. So far as the subsoil plough may open the soil below the ordinary line of ploughing—or, in other words, below the inverted body of the soil, so far will the waters proceeding from rains and snows descend, and be placed in a condition not to be so violently operated upon by atmospheric changes; and it is within the scale of probability, that at the level made by the sub-soil plough, there will be found a conduit to carry off those surplus waters which have heretofore been the cause of the spewing out of the wheat plant, on each recurring spring. Independently, however, of these considerations there is another resulting benefit. By increasing the depth of the soil, heat and air is admitted, and certain chemical transformations take place, which improve the character of the subsoil, add to the mineral resources of the soil, and promote the healthful growth of the plants, increase the quantity of the product, and improve the quality of the wheat. The roots of the wheat plant at maturity, have been traced to a depth of three or four feet, and hence the supposition is a fair one, that, in proportion as you depress the resistance of the earth to the descent of those roots—in proportion as you meliorate the condition of the soil beneath the ploughed soil, by the admission of warmth and air, so will you improve the character of vigorous and healthful growth to the plants which derive their support therefrom.

Smut is one of those diseases which injuriously affect wheat,—it is a disease, however, that is entirely within the control of the wheat grower, so that he, whose wheat may be smutty, must be set down as a slovenly farmer, who, by his neglect, has placed himself in a category, which shuts him out from the sympathy of his fellow farmers. With these remarks upon the advantages of *subsoil ploughing* and *smut*, we shall proceed to other details.

Seeding in Corn grounds.—Where wheat may be seeded in corn grounds, it is necessary that in ploughing or cultivating in the seed, the surface should be made as level as practicable; but we are free to say, that nothing but dire necessity would ever induce us to grow wheat on corn ground. Wheat is a grain that requires a clean fallow, and hence it is that cleanliness of field, is sought to be attained in the culture of the corn, as a preparative for wheat. For ourself we would rather seek to attain that end through repeated stirring of ley, or sward ground after it had been broken up—this would involve increase of labor, but we would not mind that, as we should fully calculate to receive our reward in the increased quantity of the product. We have never thought that fields intended for wheat were sufficiently stirred, or that attention enough had been paid to the extermination of grass, weeds, and their respective seeds, before the ground was seeded. In England, wheat fields, in the course of preparation, receive from 2 to 5 ploughings, harrowings, and rakings; after each of which the clods of grass and weeds are gathered by hand rakes, and either burnt or removed to the dung heap. This minute and particular mode of preparation may be pursued there, where labor is not more than one-third the price it is here; but though, owing to the high price of labor with us, we cannot follow their example, we might obtain some portion of the advantages, by being a little more particular than we are. By ploughing deep, subsoiling, harrowing and rolling, and leaving time for the upturned seeds of grass and weeds to vegetate, and then subjecting the land to a stirring with the cultivator and harrow, a tolerably clean tilth might be obtained to seed upon. This might be accomplished simply by commencing the fallowing a few weeks earlier than usual, and by stirring the soil as we suggest twice before seeding, at intervals of from eight to ten days apart. It may not be allowed for any one to do these things the present season, but nevertheless, our intimation is not the less opportune.

Seeding on a naked fallow, ploughing, &c.—Where it is designed to break up a clover-ley, grass-sward, or old field, for wheat, we would plough deep, say 8 inches, turn the furrow flat, run a heavy roller in the direction of the furrow, then harrow and cross harrow. If we intended to use *Guano* as a manure we would sow it broadcast, at the rate of from 200 to 400 lbs. per acre, taking care to let the plough cover nearly as fast as the guano was sown. As a precaution, however, against the escape and consequent loss of the already formed ammonia of the guano, we would previously mix a peck of plaster with every hundred pounds of it. The ploughing done, we would again harrow and roll, when the soil would be ready for the reception of the seed.

Putting in the Seed.—We believe that the best plan to sow wheat, is by the *drilling machine.* By this method greater regularity is attained in the distribution of the seed, a great saving of seed is effected, a considerable gain in product obtained, less liability to winter-killing secured, while the chances of exemption, to some extent, against the rust, by the free circulation of air through the drills, are increased. If, however, the drill should not be used, and the seed plough should, the wheat should not be buried more than from 2 to 3 inches at farthest. If the cultivator be used, the depth would be regulated by the depth of its tines, but whether the plough, cultivator or harrow, be used, the ground must be rolled with a heavy roller, so as to bring the soil into immediate contact with the seed, and effect a smooth surface. Should any one contemplate manuring his ground with bone-earth, we would suggest that 10 bushels per acre will be enough, but that its activity would be increased, by mixing 10 bushels of ashes, per acre, with it. Sow broadcast; harrow and roll.

Water Furrows.—The wheat in, lay off water-furrows, and run the roller cross-wise over them.

Preparation of the Seed.—Wash the seed wheat in clean water, until the water ceases to be discolored, then *soak it in a brine made of salt*, strong enough to float an egg, for 12 hours. When you want to sow, drain the brine from off the wheat, lay the wheat on a floor, and add as much freshly slacked lime to it as will coat every grain; this can be effectually done, by letting one hand apply the lime while another is shovelling over the wheat. Take no more out of the brine any one day than can be put in

during the day. This process will destroy the *smut* if your seed is thus affected, and secure to your crop an exemption from that loathsome disease. This soaking process will produce other good effects; it will encourage early germination, push forward the growth of the plants at the onset, and enable them to send forth their roots earlier than otherwise, and thereby get a foothold in the earth before the setting in of hard frosts; all objects of moment.

In connection with the subject of soaks, it is but proper to remark that various other substances have been recommended, as, solutions of *arsenic*, solutions of *copperas*, solutions of *blue vitriol*, stale chamberley, solutions of lime, and ley of wood ashes, but as we have tried the one we recommend, and as it is simple and effective, we prefer it to any other.

Selection of Seed.—Care should be observed in selecting your seed wheat; it should be of a good variety, free from the seeds of weeds of every description.

Quantity of Seed per Acre.—If sown broadcast less than 2 bushels per acre should not be sown: if sowed in rows with a drill, 5 pecks will answer, a saving to be appreciated where a man has a large field to sow, which, when added to the advantages which are said to enure to the drilling over the broadcasting system, should operate strongly with all well judging minds who estimate properly all that tends to enlightened economy; for if more grain can be grown with less seed—with a saving of 3 in every 8 pecks, none can hesitate long in determining on which side his interest lies.

Manure for Wheat.—We have before suggested Guano and bone-dust as proper manures for wheat, and we will here remark that all wheat lands should be limed, unless that mineral is naturally existing in it. Lime enters into the composition of both the grain and the straw of wheat, so also does potash and phosphoric acid, magnesia and sulphuric acid. If therefore, these substances, by a long course of culture, may have been extracted from the soil, they may be reinstated by a compost formed precisely as we have suggested under the head of rye.

Kinds of Wheat.—Each wheat grower must consult his own good judgment upon this subject; all we can say is, that the Mediterranean has more generally come out, through the last season, unscathed, than any other.

DRAINING WET LANDS.

As the season is now suitable to the operation of draining, and we believe it is beneficial to the increase of the products of the soil as it is conducive to health, we feel that we cannot perform a more acceptable service to our patrons than by summing up the advantages of the practice, as laid down by Johnston and Colman:

1. Draining carries off all stagnant water, and gives a ready escape to the excess of what falls in rain.

2. It prevents the ascent of water from below, either by capillary attraction, or springs.

3. It allows the water of rains to penetrate, and find a ready passage from the soil, instead of washing the surface.

4. The descent of water through the soil is followed by fresh air, which occupies the space just left by the water.

5. The soil after thorough draining becomes looser, more friable and easily broken; this is especially true of stubborn clays, which in practice become altogether another soil.

6. By freeing the soil from the excess of water, it becomes warmer, and thereby advances the crop to an earlier harvest: thus it is *equivalent to a change of climate.*

7. When the autumn is wet, draining carries off the superabundance of water, and prepares the land for sowing fall crops, which would otherwise be retarded, or altogether prevented.

8. In its consequences it is equivalent to an actual deepening of the soil.

9. In wet soils, bones, lime, wood-ashes, rape-dust, nitrate of soda, and other artificial manures are almost thrown away.

10. He who drains confers a benefit upon his neighbors by producing a salubrious climate, thereby conducing to the physical health and moral happiness of the whole population within the range of such improvement.

[For a particular description of the best modes of draining, we must refer the reader to the able essays in our last volume upon the subject.]

SOWING TIMOTHY SEED.

If not already done, your timothy seed should be sown without delay. If your soil is not fertile, you should be sure to give to it a generous dressing of manure, and, speaking from experience, we can say, that nothing is better than a *plentiful dose of barn-yard and stable manure*, composted together, as in these nearly all the food in which this most excellent grass delights to feed are to be found. We say a *plentiful dose* must be given, and we are certain, when our readers reflect, that timothy, when properly cared for, lasts for seven years, we shall not be considered as exacting. But however plentiful the dose of nutritive manure may be, unless the land shall have been previously limed, or that mineral be naturally present in it, the culturist should treat it to a dose of lime. If not convenient to do so at the time of seeding, it may be limed next spring, as soon as the frost is out of the ground, and there is no danger from poaching, or it may be delayed until after the grass is cut. Twenty-five bushels of lime to the acre will answer, though fifty or a hundred would answer better. If we were about to set a timothy meadow, and could get the seed in within the first ten days of this month, we should sow a peck of buckwheat upon every acre of it, with the view of sheltering the young timothy plants through the winter and early spring, and of deriving benefit, subsequently, from the shade and decomposition of the leaves and stalks of the buckwheat plants, as well as a measurable exemption from weeds. In early spring, as soon as the frost was out of the ground, we would pass a roller over it.

Soil.—The soil which suits timothy best is a *moist*, rather stiff loam—when we say *moist*, we do *not* wish to be understood as meaning *wet;* for though it delights in moisture, it does not thrive well where its roots are continually surrounded by water—it must have time for taking up and digesting its food; and that it cannot do in soils surcharged at all times with water. We have grown timothy in moist bottoms, and upon high grounds, and in both places successfully, but we ascribed our success in each to the liberality of our manuring, and the care which we devoted to the preparation of the ground.

Preparation of the Soil.—As we have before premised, the land must be liberally supplied with *nutritive* manures, and we have suggested that a compost of barn-yard and stable manure is as good as any other kind, and so it is; but there are other sub-

stances that will answer. If the above compost be applied, the *dose, per acre*, should not be less than 20 double horse cart loads. 400 lbs. of *Guano*, per acre, or 20 bushels of bone-dust and 10 of ashes per acre will answer. If Guano be applied, like the barn-yard and stable manure, it must be ploughed in—the bone-dust and ashes should be broadcasted and harrowed in with the seed. The land must be ploughed deeply and faithfully, without baulk, with the *slices laid flat*, then rolled lengthwise of the furrows, harrowed first in the same direction and then cross-wise. The harrowing must be continued until the soil is reduced to a perfectly fine tilth. In the reduction of the soil, the heavier the harrow the better—not so however in harrowing in the seed, then the harrow to be used must be a *light* one.

Quantity of Seed per acre.—At this season less than a *peck and a half* of seed should not be sown, to allow for casualties.

Seeding.—In sowing the seed, the utmost care must be taken to distribute it evenly over the field, so that no bald places be left, and that the timothy plants may have as few intruders as possible.

Ashing.—As ashes are not available in large quantities, except in favored locations, we will say, that *annual* dressing of timothy meadows with even 2 bushels of ashes per acre, will greatly tend to encourage the growth of the grass and improve the quality of the hay. Were we in a situation to make our selection, while we were liming our land for a timothy meadow, we would make a compost of equal quantities of lime and ashes, as potash is indispensable to the successful growth of the timothy plant. Where lime is not to be obtained, *marl* in double and triple quantities will answer fully as well.

Meadows.—All meadows which may have been a year or so in crops, would be benefitted by having a few bushels of ashes, say from 2 to 5 per acre, sown broadcast over them, and harrowed and rolled.

THRASHING OUT GRAIN.

This work should be gotten through with at the earliest convenience, in order that the farmer may be enabled to avail himself of every rise of the market; but before he stows it away in his *granary*, he should have that well cleansed, by scouring the floor, walls, and ceiling with ley made strong from wood ashes, and after permitting them to become dry, by giving them a white-washing.

PASTURES.

If you have a pasture for your stock, withdraw them from it for a week or ten days—strew over every acre of it from two to five bushels of a mixture formed in the proportion of 5 bushels of lime, 5 bushels of ashes, 1 bushel of salt, and 1 bushel of plaster, and 2 bushels of bone-earth, harrow this in and roll. If you have no pasture, you should exert yourself to prepare one, and it is unjust, as is often the case, to turn your cattle out to poach upon your neighbors, or to gain a livelihood in the roads. Any stock that may be deemed worthy of being kept, is entitled to be well provided for, *and at the expense of their owner*—no man has a right either legally or morally, to tax others with the support of his stock.

ORCHARDS.

If the pressing calls upon the labor of your force, has hitherto prevented you from the examination of your orchards, do so now. If you find any dead limbs on the trees, cut them off with a saw, down into the sound wood, smooth off the surface of the wound, and give it one or two paintings with a mixture formed of equal parts of fresh cow-dung, lime and loam, or of a composition made of 2 parts beeswax, 2 parts rosin, 1 part tallow, and 1 part spirits of turpentine; the beeswax, rosin and tallow to be melted and stirred over a slow fire, and when thoroughly dissolved and mixed, the spirits of turpentine is to be poured and stirred in—to be applied with a painter's brush.

The above being done, as next year will be the bearing year of your orchard, *treat your trees to something to eat.* As good a compost as you could give them would be, for every acre of trees, 10 double horse cart loads of marsh mud, road scrapings or woods' mould, 5 bushels of each of lime and ashes, 2 bushels of bone-dust, and 1 bushel of salt, to be ploughed in about three inches deep, or even harrowed in. He who expects healthy trees and fine, fair fruit, *must feed his trees,—neither man nor a can work without food, nor can fruit trees exist for a long series of years and bear good fruit, unless they are periodically manured.* It is useless to grumble about the deterioration of fruit, when you provide not the trees with food. Every living thing must eat. The fallen fruit either be picked up and given to the hogs, or the latter be turned into the orchard to pick them up for themselves.

COLLECTING MATERIALS FOR MANURE.

Go to your woods, to your marshes, to the heads of your creeks, to the road sides, head-lands, fence corners, fence sides, and to every other place in and on your farm, and collect materials to convert into manure, form them into compost heaps, and if you judiciously mix them together, next spring will find you in possession of ample manuring resources. Employ a hand, cart and horse in the collection of such materials until stopped by the frosts of winter—the expense will be nothing in comparison with the value of the manure which may be thus accumulated. Mix the products of your compost heaps next spring with your barn-yard and stable manures, and you will find your quantity amazingly increased, while its quality will not be in the least impaired. Cover your *cow-yards* and *pig-pens* with the substances we have enumerated above, and your cattle and hogs will make it into first rate manure during fall, winter, and spring.

SETTING-OUT ORCHARDS.

Do you intend to set out an orchard this fall? If you do, plough the ground you intend for it as soon in this month as possible—plough it as deeply as the strength of your team will permit you to go, let a subsoil plough follow the share plough, so as to break and pulverize the ground at least 12 or 16 inches. Just before you intend to set out your trees, put on 20 loads per acre, of a compost formed of equal parts of barn-yard and stable manure, marsh, river or creek mud, 10 bushels of ashes, 20 bushels of lime and 10 bushels of bone-dust per acre, spread this over your ground, and plough it in some *four inches deep*, harrow and roll, and your ground will he fit for the reception of your trees. In the preparation of the soil for an orchard, one cannot be too liberal in manuring, nor too careful in ploughing and reducing the land to the finest tilth of which it is susceptible.

FENCES.

Examine the fences which enclose your cornfields—*do it yourself*, and have every weak point made strong. Failing pastures tempt stock to break in and destroy. Care in this regard *now*, may save you from vexation and loss hereafter.

But while we are upon the subject of fences, we

ll seize the occasion to mention the fact, *that re is no general law in Maryland, upon the subject division fences;* though several of the counties e *special* ones, which tax the owners of adjoin- lands with one-half of the expense of the crea- and repairs of such fences. This being a sub- of *general* interest should be provided for by a *eral* law; *special* legislation upon matters of gen- l concern, is a thing that we have ever abhorred. suming that the same defect exists in the laws ther States, we mention the fact in regard to condition of our own State, that the subject be brought home to the business, bosoms, and rest of farmers and planters generally.

DUCKING SHORES IN MARYLAND.

Within the last few years, the *ducking shores* sit- ed on the upper waters of the Chesapeake, and e tributaries which empty into them, have n rendered almost useless by intruders from er states. A few of the rivers have been at- pted to be protected by special laws, but so de- ive have they been framed, as to defeat the very ect they had in view. They annex a penalty a- st the citizens of *other* States; but the loafers in stion, evade the statutes, by *temporarily* removing r families into Maryland, and, by thus surrep- sly claiming the right of citizenship, bid defi- e to the penalties of the laws in question. As learn, that they have boats so constructed as to t down with the *level* of the water, the gunners g down in their boats, are enabled to approach ducks unobserved, by floating down with the , thereby destroying all possible chance of the prietors of gunning grounds from getting a shot n their shores. This is an evil that should be edied.

SALTING OF STOCK.

Twice a week at least the horses, mules, oxen, cattle generally, should be given salt. A mix- e of ashes finely sifted, lime, and salt, mixed ether, in equal quantities, will answer better n salt alone.

OUT-HOUSES AND CELLARS.

These should all be cleansed and white-washed. me or plaster should be spread over their floors, also on all places where offensive matters may e accumulated, especially in and around sewers drains near the dwellings and quarters. One the most reliable disinfectants known is that ge of 3 parts common salt, 1 part manganese— se must be mixed together, placed in an earthen other tight vessel, and have small quantities of lphuric acid occasionally poured over them. en gas ceases to be thrown off is the proper time re-apply the sulphuric acid. A quarter of a nd of manganese, three-fourths of a pound of and half a pound of sulphuric acid would last a week. Another very excellent disinfectant is ed in slacking lime with sulphuric acid, the acid e poured on daily, in small portions until the e ceases to throw off gas. *Plaster*, is probably neatest disinfectant known, and if repeated at rvals of a few days will prove an efficient one. recur to this subject because of the prevalence of cholera, and no one knows when his home may invaded by it, and because, borrowing the senti- t from Washington—it is right in time of health, prepare against disease.

IMPLEMENTS AND TOOLS OF HUSBANDRY.

At all times have these kept in order, and when in use, under cover. To ensure their being so kept it is necessary to make personal examinations of them every few days. A duty which every pro- prietor should personally perform.

WORKING ANIMALS.

Feed these well, keep them well bedded at night, and have them curried or carded and brushed down twice a day. See that they are regularly watered three times a day, and occasionally receive linseed meal in their messes.

CORN CROP OF MARYLAND.—From all the infor- mation we could gain up to the 13th of August, we came to the conclusion that the corn crop of Mary- land would, in the aggregate, prove to be a small one, although we had reason to hope, in July, that it would give a fair yield. It had been got in very late, and was kept back by the drought; but the re- freshing rains experienced, in some sections, in July, made a worderful change for the better; since which time, however, except in some favored regions, it has suffered greatly from drought. In many of the counties, and parts of counties, the corn was laboring under the baleful influence of the most blighting drought—a condition of things which every farmer knows to be fatal to the successful filling out of the ears. Let every farmer be carefui, then, to husband every thing in the shape of pro- veander, as, should the corn crop ultimately turn out a short one, he will need all that is edible for his stock.

We had a rain in our vicinity on the 14th ult.; but whether it was sufficiently extensive in its range to do much good, we are not prepared to say.

CROPS AT THE SOUTH.—The *Nachitoches Chronicle*, of the 28th July, says:

"It has been raining here, almost without inter- ruption, for 40 days. The crops must be nearly past praying for."

The *Point Coupee Echo* states, "that since the river has fallen, nearly all the peach and China trees have died along the coast in that parish."

The "*Red Republican*" says: It is impossible for the cotton crop to recover from the injury it has sustained from the rain which had prevailed for 30 days. The opinion of intelligent farmers is, that more than half a crop of cotton cannot be made— that the sugar crop must be materially injured.

In *Florida*, the *Tallahassee Journal* states, that both the corn and cotton crop promises to be very good.

CROPS IN NEW YORK.—A correspondent of the New York Express, writing from Smyrna, the cen- tre of the grain growing district of the State of New York, under date of the 5th ult., says:

"We are suffering severely here from drought, not having had a drop of rain for the last six weeks. English* grain is much injured, and corn will amount to nothing, unless we have rain soon. Po- tatoes and other vegetables are considerably hurt."

*The term "*English grain*," in the sense used above, is incomprehensible to us.

COMMISSION MERCHANTS.—We commend to the attention of farmers, our young friends Duvall & Iglehart, whose ad- vertisement will be found on another page.

APPLICATION AND ACTION OF PUTRESCENT MANURES

Upon these subjects we copy into our columns a most ably written essay from the pen of EDMUND RUFFIN, a gentleman as distinguished for his success as a practical farmer, as he is for his ability and power as an agricultural writer. The subjects which he has selected for discussion are of profound interest to every one engaged in the cultivation of the soil, as they involve the question of *economy* in the use of such manures as are usually applied by the great body of farmers throughout the country. We commend this paper to the *study* of our agricultural friends. It was originally published in the Richmond Enquirer some years ago, and our attention has been called to it by a valued friend, as the system of applying manure practiced by the *best* farmers in Eastern Virginia,—it is believed, through the example of Mr. Ruffin,—yet but few persons who have adopted it, have ever seen the essay, in which the *reasons* are advanced therefor.

DESULTORY OBSERVATIONS ON THE APPLICATION AND ACTION OF PUTRESCENT MANURES.

For the last ten years, the manure from my stable and cow yard has been mostly, and, as far as circumstances permitted, applied on the surface of the land, and to clover. To most persons, this mode of application may seem the most wasteful and destructive of fertilizing principles. But, according to my limited experience and information, as well as to reason and sound theory, this mode is the cheapest, the most convenient, and also the most profitable use that can be made of the ordinary manures for field crops, wherever clover is suited to the soil and climate; and it is the more cheap and profitable, compared to the usual modes of application, in proportion as the manure applied is in a coarse and unrotted condition.

Before proceeding to the details of this process, and endeavoring to show its peculiar advantages, it will be necessary to make some general observations on the action of putrescent or alimentary manures, and the causes and manner of their waste; from which premises, if they be correct, may be deduced what would be the most or the least wasteful modes of application, even without the support of my experience and testimony.

Putrescent manures are composed of vegetable or animal matters, or mixtures of both. All such manures are subject to decomposition, or rotting; and, therefore, to the gradual change and final destruction of their substance, and waste of all the parts not put to use during the progress of decay. The parts thus subject to waste are capable of feeding and supporting plants; and hence, in their main value and proper use, putrescent manures are (or ought to be) almost entirely *alimentary* in their action. All vegetable manures contain some mineral and indestructible parts—earthy, saline or metallic. But these parts are so minute in quantity, that they scarcely need to be mentioned as exceptions to the general character of putrescent manures as stated—that is, their being *wholly* fit for the food of plants, and as wholly subject to waste if not so used.

Fermentation is the process, or means, by which putrescent matters become active manures for the nourishment of plants, and if they be not used, when ready, fermentation proceeds to utter destruction and waste of the manures. Fermentation may be either violent, as often in heaped and heated stable manure, and producing the greatest possible waste—or as and gradual as in the natural decay and of the leaves or grass fallen on the soils where grew. But fermentation cannot begin, or, already begun, cannot proceed, without the concurrence of three conditions. These are—1st, ture; 2d, temperature above 48 degrees Fahrenheit and 3d, the access of atmospheric air. All conditions are necessary, and if either one be wanting, there can be no fermentation or progress wards decomposition, and, of course, no waste loss of fertilizing principles. These positions among the established and received doctrines chemical science, and, therefore, need no proof here. From them it is an obvious deduction, that if manure, or any putrescent matter, be supplied with sufficient moisture and air, but the temperature be kept below 48 degrees, (or whatever is the minimum,) then there can be no fermentation, and consequently no waste of the manure. Or if air could be entirely excluded, the most favorable conditions as to moisture and heat could not induce fermentation or decay. The total exclusion of air, however, (though to be obtained for chemical experiment,) is impossible in agricultural practice. But every farmer must have observed, how much the commencement or progress of fermentation in a body of manure is retarded by its being closely compressed, and its state thus approaching to the exclusion of air; and how rapidly fermentation is excited, or renewed, (the other necessary conditions being favorable,) by the mere loosening or heaping of the before compact mass, so as to open the entrance and supply of air.

Again: If air and heat be furnished under the most favorable conditions, and yet moisture be entirely wanting, there can be no fermentation, and no waste of manure. And this latter state is nearly approached when manure has been spread thinly on the unshaded surface of ploughed or other naked and clean land, and remains thus exposed to warm and dry weather. And, therefore, a state of entire exposure to sun and air, which is deemed by most persons to be the most wasteful manure, there is, in truth, as little waste of the parts as can possibly occur, so long as hot and dry weather continues. There may be some small loss of volatile parts only, under these circumstances.

There has been presented on many farms practical proof of the truth of this deduction, in Such cow-pens, left with the rich and highly putrescent manure exposed on the otherwise naked surface of the ground. This was formerly the general practice of Eastern Virginia; induced not by correct reasoning, but by the general carelessness and indolence of the cultivators. Our first distinguished agricultural author and instructor, John Taylor, maintained the propriety and high importance of ploughing such temporary pens as quickly as

*This is the minimum stated by the late work of Dr. Dalton. Some earlier writers have placed it as low as the freezing point.

...le are moved to a new one. He supposed ...vaporation" to be the great agent of the waste ... destruction of manure; and its being left ex...ed on the surface as the sure means of producing ...e results. But this was one of the points on ...ch this enlightened agriculturist and great pub...benefactor was entirely mistaken. Most of his ...y zealous disciples proceeded to obey this in...ction, which seemed so reasonable. But the ...st judicious of those who adopted this new prac..., as well as many other merely practical and ig...ant farmers, observed that, on the cow-pens thus ...ughed in summer, the manure was much less ...ctive and lasting than on similar pens not plough...until winter. This result seemed so strange, ... so contrary to all sound reasoning, as well as to ...highest authority, that many farmers could not ...ere the alleged facts, and even to this time, ...e continue to be incredulous, no matter how ...ng the testimony of such facts. But if tested ...the chemical truths above presented, it will be ...n that they remove the opposing difficulties, and ...ain the position even more strongly than has ...n done by experience and observation of actual ...ults in farming practice. The summer cow-pens ...re not littered, and the trampling of the cattle in ...w nights destroyed all vegetation, and made a ...d and close, bare surface. On this bare sur..., the remaining manure consisting entirely of ...excrement of the cattle, was left after a week ...two, when the animals were moved to enrich ...ther space. If this rich and very putrescent ...nure remains thus exposed, the hot sun soon ...s it so perfectly, that fermentation either does ... begin, or is soon checked; and this state must ...tinue as long as the weather continues dry. ...en rain occurs, it penetrates the dried manure ...lightly, that it again becomes dry very quickly, ... before fermentation can make much progress, ...n if it begins. And, therefore, for want of ...ugh and continued moisture, there must be but ...e waste of the manure.

But, suppose this manure to be turned under by ... plough, and covered by some 4 or 6 inches of ...: Then moisture, the condition before wanted, ...rnished to the manure from the earth, while the ... still continues to have sufficiently easy access, ... the temperature, though lowered, is still as ...h as need be. All the three conditions necessa...for fermentation are there, operating in the most ...orable manner, and its progress must be rapid ...ordingly. And, as there is no crop then grow...on the land, nor any vegetation, to take up the ...oducts of fermentation, they must pass from one ...ge of decomposition to the next, subject to waste ...very successive change, until the final result is ...ched, of the formation of gases, and their expan...n and escape into the atmosphere, and being ...stly carried far off by winds.

The strongest case of known practice has been ...e presented, to show how manures may be the ...st completely and quickly wasted by the very ...ans used for their better preservation. But the ...nciple is the same in all cases. And the fore...ng statement may have more or less of applica...n to many other and different kinds of manuring ...land. If the positions assumed above are con...ered as established, then enough has been said ...eady to show the fallacy of the generally pre...ling opinion, that the *covering* of manure with ...e soil is the most effectual mode of *securing* it ...m waste. What will next follow, will serve as premises for the main proposition designed to be maintained, viz: that by top-dressing, on clover especially, there is less loss of manure, less labor required, and more sure and profitable returns, than in any other mode of applying ordinary stable and cow-yard manures.

Let us proceed to consider the manner in which putrescent manure acts on soil and plants, and is acted upon by decomposing agents.

All putrescent manures, or vegetable or mixed materials of which manures may be made, and in every different state as to soundness or decay, consist of matter partly soluble in water, and partly insoluble. The proportion of soluble parts in any one mass or kind of material, is the least before fermentation or decay has commenced, and also the less in proportion as the substances are solid, hard and unbroken. In this state of vegetable matter, the part which water can dissolve is very small. This soluble or extractive matter is the part, and that only, which serves as food for plants. Of course manure, in this fresh and unbroken state, can then furnish but a very minute proportion of what is useful and nourishing to any crop; and nearly the whole mass is, for the time, inert and useless as manure, if not absolutely an incumbrance to the soil and crop, or an obstacle to the tillage. However, with every step of advancing fermentation or decay, more and more of the insoluble and inert parts become soluble and fit for use; and if permitted to feed plants as fast as the parts become soluble, then nothing of the manure will be wasted, and all will be put to immediate and profitable use. But fermentation or decomposition, which acts so beneficially, first in reducing the hard and before useless parts of manure to the soluble and useful state, proceeds next to act upon them injuriously. If the soluble parts of manure are not taken up by plants, their decomposition still advances—and every successive step serves to destroy or lessen some of the remaining fertilizing principles. The last result is the conversion of the remaining solid parts, soluble in water, to different gases, or æriform fluids, highly expansive, and which must, as formed, burst forth from the confined space in the soil to rise in the air, and be mostly carried off by the winds. When such changes, of insoluble to soluble matter, and finally to æriform, occur in a heap or body of manure, not in immediate contact with soil and of course not to be drawn upon by the roots of growing plants, then the successive products are more or less exposed to waste; and when they reach the last or gaseous state, their escape and total loss is enevitable. If the changes and successive steps of decomposition took place in vegetable or mixed putrescent matters dispersed upon or intermixed with soil and within reach of the roots of enough growing plants, then nothing would be lost; because, as fast as the parts became soluble, they would be absorbed and put to use. And even if, under these circumstances, some gaseous products should be slowly evolved, it is most probable that they would be dissolved in the moisture of the soil, and thus pass into and help to support the plants.

The general changes and results of decomposing manure are the same, and as above described, without respect to the rate or manner of fermentation. If the manure be in mass, as left thickly covering a winter's cattle yard, or is subsequently heaped, the fermentation will proceed with more or less energy, according to the degree of exposure to and combined action of the three agents of fermentation:

heat, air and moisture. And the action will be the more quick in proportion to the richness of the mass in animal matter: or such as is the most putrescent, and which, therefore, serves as a leaven to excite fermentation in the whole mass. In such condition, and by too violent fermentation, the present or early acting value of the whole body, for any one time, may be greatly increased, by the great bulk of insoluble and inert materials being, to considerable extent, made soluble. But all the previous gaseous products were driven off and lost by the same operation; and, if thus remaining, the soluble parts also, in their turn, will become gaseous, and be lost in like manner.

If, on the contrary, the manure, when fresh, and before fermentation had made any progress, had been diffused through the soil, the same changes would have occurred, though more gently and slowly; and even the same losses—unless growing plants were present, and sufficiently numerous to take up the manure as fast as it became fit for their use.

My remarks have led me to anticipate incidentally an opinion which ought to be more fully presented. This is, that the extractive and soluble parts of putrescent manures form the food of plants. This doctrine is that maintained by the great agricultural chemist, Davy; and clear and indisputable as he has made it appear, the doctrine was not only opposed to previous and received opinions, which are now left without an advocate, but is now opposed by the more recent and fashionable authority of Liebig. But it is not my purpose here to examine or discuss opposing opinions; and they are thus slightly referred to, merely to avoid producing the wrong impression, that Davy's opinions had been adopted and were still adhered to, for want of comparing them with those, and especially the later opinions of others. Davy says: "Vegetable and animal substances deposited in the soil, as is shown by universal experience, are consumed during the process of vegetation; and they can only nourish the plant by affording solid matters capable of being dissolved by water, or gaseous substances capable of being absorbed by the fluids in the leaves of vegetables. But such parts of them as are rendered gaseous, and that pass into the atmosphere, must produce a comparatively small effect; for gases soon become diffused through the mass of the surrounding air. *The great object in the application of manure should be to make it afford as much soluble matter as possible to the roots of the plant, and that in a slow and gradual manner, so that it may be entirely consumed in forming sap and organized parts.*"—(*Agr. Chem., Lecture VI.*)

The concluding sentence of this passage may be considered as the text of my discourse—the rule which I desire to be strictly followed in practice, and the test to which I submit the details of the particular mode of applying manure, here recommended.

The only portion, then, of putrescent manures, which, for the time, can nourish plants, through their roots, is so much as is soluble in water, and then actually dissolved; for, no matter how much of soluble matter may be in manure when applied, it cannot act as food for plants until rain, or some other source of moisture, produces solution.

The much larger part of the soluble matter of manures is such as is either solid or liquid. But even if in part advanced to the gaseous state, if the change be slow enough, such æriform products may be absorbed by the moisture of the earth, and th in solution, be conveyed through the roots to nou ish the plants. Water readily absorbs carb acid gas, by mere contact; and ammonia is so eag absorbed, that there may be condensed in wa more than seven hundred times its bulk of this hig ly fertilizing gas. And even after gases, produc by fermentation, may have risen, by expansi above the surface of the manured soil, they may still partially saved, by being absorbed and re densed in dew, and thus conveyed back to t roots.

But the most important mode by which plants ceive carbonic acid gas as food, is from the atm phere and by absorption through their leaves. This gas is diffused throughout the atmosphe near the earth, universally and at all times, thou in very small proportion, so that it is always pre ent and abundant for the wants of growing pla Thus it appears that there is no limit to the sup of this essentially necessary food, which, whet obtained through the roots from the earth, or throu the leaves from the atmosphere, serves to supp the large quantity of carbon which helps to cons tute every plant. But though there is no limit the supply of this food, (carbonic acid gas) from t atmosphere, and it is thus offered to all plants u in all situations, still there is a strict limit impo upon the appetite of plants, or upon their ability consume and be nourished by this food, and th limit is determined by the constitution of the su and the character of the other manures feeding t plant through the roots.

From all the foregoing preliminary propositi I shall now proceed to deduce the truths which was the design of this paper to establish; that is determine by which mode of application the fer izing principles of manure may be best economiz by the largest possible portion being put to use food for plants, and the least possible suffered to to waste.

It has been stated above, that all putrescent ma ures, (in whatever stage of the progress of fermen tation and decay, and also in the freshest and sou est state of the materials, before fermentation h begun,) consist partly of soluble matter, already to serve as food for plants, and partly of hard, i soluble matter, inert and at that time useless manure. The proportions and quantities of the different parts continually vary in the same bod with the progress of decomposition, by the insoluble parts changing to soluble, and the soluble to th gaseous form, and then passing off, and being los If manure, whether in its newest and soundest, in its oldest and most reduced state, or in any inte mediate stage of decomposition, be applied to land and ploughed under, as is usual, the soluble part will be dissolved by the first abundant rain. I roots of then growing plants had already spread throughout the soil, and were every where present when this solution of the manure took place, they would begin immediately to suck up the liquid food thus offered, and in a few days the whole supply might be put to use, and converted to parts of the plants so fed. But if no plants were yet growing when this solution occurred, then none of this food could be put to such use. If the soil is properly constituted to combine with, and retain such pu trescent matter, and also then requires the supply it may be so saved until plants are in possession of the soil, and demand and will consume the before useless food. But any excess of soluble matter that

rnished, and not consumed immediately by plants, d beyond the ability and need of the soil to com- e with and fix—and also all subsequent supplies ilar like circumstances—would be subject to fur- r decomposition, and finally to entire waste in the eous state. Some parts, while yet in the condi- n of solids dissolved in water, would pass off from land with the excess of rain water, and flow into brooks and rivers. Other parts would sink rough the pervious subsoil as low as the solvent water could descend in moisture. From this th, perhaps, the dissolved matter may subse- ently be drawn up again by the deeply penetrat- roots of plants. But it is as likely to be carried l lower by other rains, and be lost in the sources springs and wells. That the latter effect is often duced, and in a degree as great as the effect is gusting, may be witnessed in every city built on el and pervious ground, by the offensive condi- n of the water of shallow wells.

Such losses must follow, to greater or less extent, ploughing under of manure on soil not occupied growing plants; because there would be nothing take up the soluble and gaseous products as suc- sfully and continually produced. If a few scat- ed plants soon after sprung up, (as in a field of n just planted) then some of the otherwise fugi- e products would be arrested and put to use. But l the greater part would meet with none of the and scattered rootlets immediately, and, there- e, would be subject to waste, whether in a liquid gaseous state, in the same manner as if no plants re there growing.

Now let us compare this, the usual mode of ap- cation of manure, and its necessary wasteful re- ts, with what must be the effects of top-dressing clover.

The preferable time for this mode of application just before or about the time when the clover en a year old since the sowing) first feels the rmth of Spring weather, and begins to show the uence in its growth. Then, also, is the best e for a general cleaning out of the winter-made nure, because the necessity for feeding and lit- ng cattle has been nearly ceased, and the older rts of the manure have become somewhat rotted, lying in the pens,) without any waste from ex- s of fermentation having yet occurred. Such nure, made principally of the straw and corn- ks used plentifully for littering, and the remains the dry and poor food of the cattle, when first up for removal in the spring, will be found to sist of a small proportion of rich and soluble ex- tive matter, (of animal more than vegetable gin,) and the much larger proportion of the un- ayed, hard, insoluble, and of course, inert vege- le matter, used for litter. If such coarse stuff is ughed under for corn, (as is usual when used in ng, and unrotted,) the difficulty of ploughing er is considerable, and the coarser parts of the nure even continue to be obstacles to later tillage cesses. These coarse parts keep the soil too n, and dispose it to become and to remain too . This dry state retards the decomposition and occurrence of the useful condition of the manure, prolongs the state of its being inconvenient to ivation and hurtful to the crop. And, for these sons, it happens in many cases, that the second ughing, given merely to cover the manure, (and rwise unnecessarily;) or, otherwise, the post- ing of the first and only ploughing very late, so t it may serve both to prepare the ground for tillage and to cover the manure, cost more than is gained from all the beneficial effects of that part of the manure permitted to act.

If the same kind of manure be applied to clover, and spread immediately, the first abundant rain carries every portion of matter already soluble and nutritious to the roots; and these being spread throughout the soil, will immediately take up the whole of the soluble portion. Within a few hours after the manure is laid upon the land, even in its coarsest state, if rain comes so soon, all the portion then fit, is in actual use as food for the crop; and in a few days just so much of the manure is converted to clover. The increased growth of the clover causes it soon to cover the remaining coarse and insoluble manure, which still is as much in bulk as was the whole application. The shade and moisture thus caused, with the increased heat of weather, induce and maintain a slow and regular advance of decomposition of the remaining manure, before insoluble, but now daily becoming more and more soluble in part. Every successive rain carries these newly made soluble parts to the roots, to be absorbed by them, and thus to add more and more to the growth of the crop, and increasing the shade and moisture of the remaining coarse manure, and hastening the repetition and augmenting the force of the like operations. The manure is thus made to act as quickly as possible in feeding the growth; and the effect on the growth re-acts on the manure, producing an increasing similar action and re-action. By August or September, (if not much earlier,) the coarse manure will be almost consumed, but, instead of remaining either dormant or wasting in the barn yard, it has before re-appeared in the new form of clover. And the augmentation thus produced in the two growths of clover, and both obtained within five months, is very far more both in bulk and value as manure, than the prepared manure consumed to produce this increase. For whatever amount of soluble manure may have been received as food through the roots, will have been doubled in its effect, and in the bulk and value of the increased growth, by aid of the additional supply of carbonic acid furnished from the atmosphere through the leaves to the plants. This gratuitous and bounteous supply of manure from the atmosphere is used by the leaves strictly in proportion to the amount of food for plants, or of the total means of their support, derived from the soil through the roots. And thus for whatever amount of manure that is given judiciously by the farmer to his crops, through clover as a manuring crop, he is rewarded by having an equal or perhaps greater value added by the bounty of Nature. And thus his draughts upon the unlimited manuring riches of the atmosphere, will be accepted and successful, in exact proportion to the amount of manure or other aid to the productive power of his land, that his own industry and care have furnished. All plants are thus supplied with an unimportant portion of their food and support from the atmosphere. This portion is *nearly* all the carbon received into their structure.* But plants of the pea tribe, and among them more especially the red clover, by their system of broad leaves, draw more from the atmosphere, and less in proportion from the soil, for their nourishment, than any other plants, and particularly the narrow-leaved

*According to Liebig's novel (and as I believe incorrect) views, the whole of the carbon in plants is received through the leaves, and none (subsequently to the first development of leaves,) through the roots or directly from the soil.

plants. Hence the great and peculiar value of red clover and of the field (or Indian) pea as manuring crops, wherever they have suitable soil and climate.

According to the cases above supposed, the farmer who applies his manure to corn, so far as it operates on that crop, converts so much of his manuring capital to grain, which he consumes or sells. If applied to clover, the operating part of the manure is as much as that both used and wasted on the corn land, and moreover the product is not consumed, but is re-invested and doubled in amount as manure, within a few months; and all of which accumulation is ready to act upon and to feed the crop of wheat, which will be sown in October of the same year.

And there is another case, of a practice formerly universal, and not yet entirely abandoned everywhere, with which the comparison of advantages presents still more marked results. This practice (copied from England, without regard to difference of climate,) is the letting the winter-made manure remain in the barn-yard through the summer, either undisturbed, or heaped, and thus still more violently and wastefully fermented. In such cases, besides all the actual and enormous destruction and total loss of the products of fermentation, (the amount of which loss I do not pretend to estimate,) there is, of the remaining part which is saved, the loss of a year's use and profit. And the interest on this capital, if properly used, would have been 100 per cent. in carbon furnished from the atmosphere. It may be objected, that the use of the barn-yard manure thus kept is not *lost*, [always excepting the wasted part,] but that the use is merely postponed for a year. This is true; but if the manure had been on clover, in the same time the amount and value would have been doubled; it would, in its new form, (of clover,) and in doubled quantity, be as fresh for recommenced action the next year, and as likely to continue acting for as many subsequent crops, as the reduced body of barn-yard manure, then first applied.

According to the views presented above, there can be scarcely any waste or loss of the solid, or even of the liquid and soluble parts of manure, thus applied to clover. There is, however, one source of loss; and which particular loss is greater than on the same score when manure is ploughed under. This is the escape of the ammonia, and perhaps other volatile parts of fermenting manure; which, if of ammonia, is evident to the sense of smell when the mass of manure is removed, and spread on the land; and of which the escape is the greater, in proportion to the richness of the mass in animal matter, and to the advanced state of hot fermentation. But this escape of gaseous products ceases with the first slight rain that falls after the manure has been spread; the volatile parts being taken up by the water and carried into the earth and to the roots. And even before rain may fall, and while the passage of the gaseous products continues, I do not believe the degree of loss thereby caused to be considerable, or to compare in amount with the other kinds of loss attendant upon other modes of manuring.

The main, and by far the most important, grounds for preferring the application of manure on clover, have been presented in the supposed operations of converting the greatest possible proportion of the manure to the food of plants, and putting it to that use in the earliest possible time, and the better avoiding the waste of fertilizing principles. But though of minor importance, there are other peculiar advantages of this practice, well deserving attention. These will be briefly stated.

The Flemish farmers, whose practices in manuring and improving lands have been so long and deservedly celebrated, act in obedience to a maxim universally received among them, that manure should never be applied immediately to grain crops, but to others of which it is desired to increase the *seeds*, but the whole vegetable product. They believe that the early effects of rich putrescent manure are mostly upon the stalk and leaf, and much less upon the grain. And, if they are correct in this opinion, then the benefit thus achieved produced on grain crops may be more in appearance than reality; or that, with a rank and luxuriant growth of stalk and blade, there may be comparatively but little increase of grain, following heavy and recent manuring. Every farmer has observed on spots which had been very heavily dunged, that the general growth of wheat is as rank and luxuriant as possible, though the stalks are too weak to support the weight of the heads, and the grain shrivelled and of mean quality. The Flemish maxim offers another reason for applying the manure to clover. For, in that, the object is not to increase the quantity of seed, but to add to the growth of the stalk and leaf.

There is a great saving of labor, perhaps amounting to one-half under ordinary circumstances, in applying the manure to clover, compared to other applications. If for corn, the breaking up of the manure, for carrying it out, cannot well be done before late in April. If much earlier removed, the entire litter will not have been in the least reduced or weakened in texture, by the beginning of fermentation, and, moreover, the cattle ought not earlier to be deprived of any part of their bed of litter. Then let us suppose the removal of the manure to the field to take place, just before the time of planting the corn on the same ground, which is the usual and the best time for this application. The land, either the land, having been broken up in winter, will require the extra labor of a second ploughing merely to cover in the manure; or, otherwise, if ploughing has been delayed, to be executed after the spreading of the manure. In the latter case the ploughing, by being so late, will usually be much more laborious and less effective; and if there is no time to wait, it is very likely to be done when the earth is not in good condition. And if ploughed early, the cost of repeating the operation will even be exceeded by other attendant disadvantages. In this case, the manure is hauled upon soft ploughed land, with great labor to the team and some injury to the ground, even in dry weather, and both of which are much increased by the wetness of the earth; and, with the usual amount of rain, the work must be suspended during half the scant and precious time intended to be devoted to manuring; and, whether such suspensions of the work occur or not, the labor of carrying out, on ploughed land, and ploughing under, all the manure of the farm, (or as much as ought to be made,) is a very heavy job, to be begun and completed within narrow and strict limits of time.

But, suppose all these difficulties to be overcome, and all the accumulated manure made in winter, and to the end of April, carried out and applied to corn; still, without resorting to the top-dressing plan, there will be no economical means of applying the stable manure made during the next four or five months, or until the time for the equally

per application of such manure by ploughing
er for wheat.

low, comparing the two modes of application
ely in reference to labor and to waste, all the
eulties are much less in top-dressing clover.
ough there is a preferable time to push this ap-
ation, indicated by the state of both the clover
the manure, still it may be begun much earlier,
continued much later, without any material or
ious loss. And the work may be done when
weather is too wet for any labor on ploughed
l. The manure made in stables, or elsewhere
litter, during summer, or any other putrescent
ters, needs not be kept, fermenting and wast-
but may be carried out at any time, and spread
clover in any state. These summer applications,
ed, are not so beneficial as if earlier, because
ing less time left to act. But it is much better
to apply the manure, than to let it be wasted.
t would be on any plan of keeping it on hand.

here is another mode of top-dressing clover,
h dry wheat straw, which is an excellent and
nomical application, whenever the quantity of
w is greater than needed for food or litter, as is
erally the case on all good wheat farms. When
threshing machine is in operation, and the carts
bringing in wheat from the field for its supply,
equires much labor to remove and to stack the
shed straw, as well as to supply the sheaves for
shing. When the rick has been built so high,
the labor of bringing straw upon it is the heavi-
then it will be even less labor to send much of
straw back to the field, in return loads, not full
ugh to require much trouble to put into the
s. The loads should be dropped on the poorer
ts of the field upon which the wheat grew, and
ch I suppose to be set with clover, sown the
e year. The hands, kept in the field to load
carts with wheat, may have enough spare time
spread the heaps of straw. But if not, the
eading should be done soon, and evenly and
ly enough, not to smother any of the young
er. The improvement will be very manifest
re winter. And if a spot so covered was an
gall, with scarcely any soil left, and of course
y poor, the clover thereon will show to the line
he covering a decided superiority over the better
d surrounding. Before August of the next suc-
ding year, the straw will be so well rotted under
shade of the covering clover, that it will offer
the least obstruction to the plough, in breaking
the land for wheat.

There are other applications of manure on the
face longer and better known than that on clover,
which are advocated and practiced by some
ers as the best modes of application. One of
se is in winter, upon wheat. When circum-
nces are favorable, and to limited extent, this
judicious practice; but it cannot be extended
it requires manures well advanced in decompo-
on, and ready to act quickly. The dressing
uld not be heavy. If it should not act early or
ugly enough to produce perceptible benefit on
wheat, it will at least certainly serve to secure
standing of the young clover, which, on poor
d, or in a dry season, would otherwise be apt to
. The chief obstacle to this mode of top-dres-
g is the usual softness of the wheat land in win-
, which forbids carting upon it, except when
zen hard.

A much more extensive practice is top-dressing,
with unrotted manure, on corn, applied from the time of planting to as late as when the plants are several inches high. I have pursued this plan to a considerable extent, in several crops. But, judging merely from one careful comparative trial of my own making, and one other reported by another farmer of my acquaintance, I infer that the effects of manure thus applied are less beneficial than when the manure is ploughed under before planting the corn. Still there is much labor saved in the former compared to the latter application. And this saving may fully compensate for any inferiority of effect. But my own experience in top-dressing either wheat or corn, is so limited, that opinions founded thereupon are entitled to very little respect.

R.

FARM STOCK OF GREAT BRITAIN.

BALTIMORE, 30th May, 1849.

To the Editor of the American Farmer:

I have to conclude my communications in regard to Farming in the Northern counties of England, and those of the South and East of Scotland, with describing the kinds of farm stocking used there. I shall, therefore, commence with the horses.

Horses, upon all farms from two hundred acres and upwards, which are used for farm purposes, are of two kinds—one principally used for hauling the produce to market, and other services which require carts, &c. to be used: this kind are found to stand this work best, which are what is called carriage horses, being well formed, clean legged, of a dark color, with very little white below the knee, and well bred—that is, having some blood in their pedigree. The other, used for ploughing only, is of a larger and heavier breed; and, therefore, the breeding is not so much thought about as the shape, &c. In all farms where there are no waste lands for young horses to run upon in summer and fall, neither of these kinds of horses are raised. The farmers, therefore, depend upon the horse dealers for a supply. A good horse for the plough, about forty years ago, could not be purchased for less than £50 sterling; and this was what the writer paid for six, in 1809. Good carriage horses could not be purchased for less than £75 and upwards. Horses intended for farm work are seldom put in harness before they are three years old, and are reckoned old horses when above ten. Those farmers who keep a horse for riding only, in general breed them; but this, only those who have large farms can do. As hunting or racing horses are never taken to belonging to farm stocking, I say nothing about them.

Cows.—Farmers, upon every kind of farm, are very particular as to their cows, and also of bulls they are put to for breeding; because much of their profits depend upon the kind of cattle they raise. There are several kinds used; but those intended for raising stock for feeding and making a profit to the farmer are of the Durham or Short Horned breed. This kind received its name from the first particular and prominent breeders (Bakewell and Mason) living in the city and county of Durham. Since then, there have sprung up many extensive breeders, such as the Culleys, Collins, Logans, &c. I have known £500 given for a calf only 12 months old to Mr. Bakewell, to raise him for a bull to serve on the Scotch side of the Tweed; nor was it thought any extravagant price, in those days, to give fifty or sixty pounds for a milch cow three years old. There were several kinds used by the Peasantry in general; but it was universally the

custom to have them covered by a Durham bull; because they knew their calves were made fit for the butcher, as veal, sooner than when from the common bull; besides, when the calves were sold to farmers, for farm stocking, the more Durham blood in them, the larger was the price they got for them. I have given £1 or guinea for a calf not one day old, of that kind; at the same time, I would not have accepted one of the common kind in a present. One observation may be made, that the full bred Bakewell or Durham breed are not thought to give so much milk or butter, in a stated period, as those of the other kinds, when about half or three parts bred, and, therefore, are not so much prized by the Peasantry or small farmers; but those tenants who rent large farms, and landed proprietors who breed for the butcher, find the full bred pays them best. These different breeds go by particular names, such as Anglesey, Lincolnshire, Lammershire, Gallowshire, Ayrshire, &c. &c. There are very few farmers who use cattle (that is, oxen) for working on their farms: when this is done, it is only for the plough; and they are harnessed in every manner as a horse, except that they are never bitted. The age, in general, is three or four years old, when they are fed for the butcher. It is no uncommon thing for two year olds to have calves; but when they are intended for this purpose, they are always better fed than otherwise. Calves are always taken from the dam the moment they are calved—never being allowed to touch a teat. In two days, when care is properly taken, they drink without the assistance of a finger, &c. At first, they are kept in a dark stall or house, and progressively get light; they are fed three times a day, for six weeks; and then to eat hay, &c., get milk which has had the cream taken from it. In the spring, whenever the weather will allow, they are put into a lot of clover, where they remain for a month or two. They are always about three months old when they are weaned, and been at least six weeks upon the clover when this is done. There is a great difference of the above mentioned kinds of cows, in regard to the quantity of milk and butter they produce. I have had cows, of the mixed Ayrshire and half Durham breed, which were under the necessity to be milked three times a day, on account of the milk they gave, being at the rate of six to eight gallons per diem, for three months, when having calved in April or May; and their produce of butter was, in general, from ten to twelve pounds, of sixteen ounces, for eight days: but care was taken to have these cows well supplied with fine grass and plenty of water, as well as being cleaned and curried like horses. And it will be found that the better cows, oxen, &c. are kept, as to cleanliness and feeding, they will repay it.

Sheep, as I formerly mentioned, are of different kinds, or rather breeds; but those held in the greatest repute, for making the most profitable return to the farmer, are the pure Leicester and the Cheviot or white-faced Highland breeds: the black-faced or common Highland will not pay so well, even when crossed with either of the other two. There are also the South Down and Merino breeds; but these are only placed in gentlemen's parks, as a point of splendor, along with the deers, &c. The farmers who have only a few sheep, always take care to have them of the pure Leicestershire breed. Those who have large flocks, commonly have two kinds, viz., the latter and Cheviot, yet take care never to allow the mixed rams to get amongst the Leicester ewes, when they intend to keep that breed pu[re]. It is the same custom with breeders of shee[p] with those of cattle, to get rams from distant f[arms] to put with their ewes. I have known one hu[n]dred guineas given for the hire of a ram for one sea[son] and stinted to one hundred ewes. There is [one] thing I may remark: that, when care is taken in breeding and feeding of these two favorite k[inds] it seldom happens but that nine out of ten [have] strong and healthy twin lambs. One thing I [must] observe, that they are very particular as to the [time] of putting the rams to the ewes, in order that [the] lambing season may fall in the beginning of [the] spring. The next thing thought upon is the w[ean]ing, which uniformly is about the shearing in [the] month of May. Formerly, the ewes were mil[ked] by women, for two or three weeks after their la[mbs] were taken from them, and the milk made [into] cheeses, but this custom is completely given up [by] all those who are particular as to their sto[ck]. Some of them put their ewes into a poor pas[ture] until the milk goes off them; others milk them [two] or three times, some days separate, for the s[ame] purpose. I prefer the latter, for humanity. [In] the above systems being observed, the lamb[s] season can be exactly calculated upon, as well [as] the weaning, and preparations made for both. [The] common custom is to take the lambs some [little] distance from their dams, and put on good pastu[re] for two or three months, then brought home, if [not] sold. It is found that farmers who follow this s[ys]tem, realize more profit from their sheep than th[ose] who allow the lambs to run most of the summ[er] with their dams, or, after weaning them, milk [the] dams for two or three weeks, for the following *reasons:* First, the lambs are much stronger, a[nd] therefore, endure the ensuing winter better; nea[rly], weigh heavier when sold to the butcher, and [if] kept for two or three years, give four or five pou[nds] of wool more per fleece than the others: the s[ame] with the ewes. This has been tried by my rec[om]mendation to some of the farmers in Baltim[ore] county, and they found it to be the fact. I s[hall] conclude this paragraph by asserting that I h[ave] seen three year old Leicester wethers, when ki[lled] and hung up for sale, weigh 30 pounds per [the] quarter, and the fore in proportion, and their fl[eece] weigh from 12 to 15 lbs. of fine washed wool, [at] ounces to the pound.

Hogs.—This kind of farm stocking may, like [the] foregoing, be divided into several breeds; but I shall class them into two. The first is termed, [by] some, the Chinese, Berkley or Bedford breed: [this] is according to fancy, as it is found by experie[nce] they are all the same original. The other may be styled the common or country breed. The dif[fer]ence in regard to the advantage of the former is well known in this country, that no observati[on] can be made thereon. I shall, however, rema[rk] that a friend of mine, on the banks of the Tweed, was most particular in raising fine farm stocking [of] every kind, nor did he spare any expense upon the same—gave me a pair of pigs, to raise a fine st[ock] off the same. I allowed them to go loose [and] with the others during winter, when they were [fed] with raw Swedish turnips, &c., along with the [other] cattle; in spring, they were all put into a field [of] fine red clover. My old stock of hogs kept [up] in the same state, all summer, as when they were put in; but these two fed fat upon the clover—[so] much so, that it might have been said, they grew as broad as long; and in the fall, when I expected [to]

addition by a litter of young ones, behold, the produce was only *one*, and it was a male. The reason was, she got too fat to have pigs. I tried her for some months, but I could not get her into condition for breeding, without putting her upon such short allowances as my feelings would not allow me to do; but care to keep the breed unmixed is taken, by keeping the breeding sows always upon poor diet.

I believe the foregoing is as much as my memory can recall upon the system of farming in my native quarter of Great Britain, out of which I have been above a quarter of a century, nor have I one volume treating upon that science now in my possession, although I brought several along with me into this country; but they have been lost, by lending and travelling through many States in the Union, as well as in Canada.

Poultry.—It is there as here. This species of farm stocking falls under the superintendence of the females upon a farm, therefore can say no more than that it seems to be better understood than any of the other branches under the eyes of the opposite sex.

I, therefore, bid you adieu, and add, that the strength, wealth and prosperity of every country depend upon the farmer or peasantry; and every farmer—yea, every citizen—should encourage such a publication as yours, above all religious tracts or political controversies whatever.

I am yours, most sincerely,
THOMAS JOHNSTON.

REPLIES TO "HOCTBERG"—SEEDING GRASS SEEDS—PROPER MANURES, &c.

We were precluded from replying in full to our valued correspondent, "*Hoctberg*," in our last, but shall now *endeavor* to answer his several inquires.

1. We do not think favorably of the practice of sowing timothy seed with, and at the time of sowing, fall grain, where that grain may be intended to mature its kernels, as the shading to which they are subjected, during the spring and fore part of the summer, necessarily renders the timothy plants tender and liable to be killed by the intensity of the sun's rays, on exposure to its influence on the grain being cut; especially injurious to their vitality will this sudden exposure to a broiling sun prove where drought may immediately succeed the harvesting of the grain. We prefer to sow timothy seed by *itself*, when we can get it in in the first three weeks of August. When we have to delay sowing it until September, we would sow a *peck and a half of timothy seed;* and then, upon the top of that, sow a peck of *buckwheat*. The latter would not, during its short existence, interfere with the growth of the former during *autumn*, but would afford it very essential *protection* during *winter*. So soon as *frost* arrives, the buckwheat will be killed off, fall, and afford covering to the young timothy plants, through winter and early spring. By their subsequent decomposition, the leaves and stems of the buckwheat will afford a measurable quantity of nutriment to the after growth of the timothy, besides maintaining no small degree of moisture in the earth—a matter of some moment in pushing forward the growth of the timothy. In the spring, as soon as the frost shall be out of the ground, and it shall have become firm enough to admit of the process, a roller should be passed over the lot or field, so as to compress the stems of the buckwheat to the earth, thereby preventing its interfering with the mowing of the grass, rendering its decomposition the more certain, and covering any of the timothy plants which may have been uprooted or thrown out of the ground by the alternations of heat and cold during winter and early spring.

2. If we intended to grow clover with the timothy, we should prefer to wait until spring before we sowed the clover seed, availing ourself of the opportunity of seeding it just before we rolled the timothy, so as to ensure the covering of the clover-seed.

Clover plants, proceeding from seed sown in the fall, might survive the winter; but of this we are *not* sure, and, therefore, would delay sowing until spring. We have known timothy and clover sown on a corn field, at the last working of the corn in summer, to succeed well—indeed, to make one of the best set grass fields we have ever seen—but it was on a field that had been highly manured with nutritive manures, limed and ashed.

Clover and timothy, however, do not consort well together, as the latter flowers and seeds much later than the former; so that before the timothy is sufficiently advanced to be cut, the clover blossoms are brown, the seed ripe, and the leaves on the decay.

Orchard grass and *clover* agree better together, and form, united, an excellent hay.

3. The selling of old unvegetative seed, either by seedsmen or others, as complained of by Hoctberg, is a practice utterly disreputable, should be abated as an outrage upon fair dealing, and made punishable by fine.

4. The destruction of our friend's clover, by the hot sun and long continued droughts of June, we think, might have been prevented, if referrible to those causes, had he sown a bushel or two of salt, per acre on it, at the time he applied his plaster.

5. With regard to the *cause* of the killing of his timothy growing in his rye, we are rather inclined to think that it was *smothered* by his luxuriant rye crop, which excluded it from the life-giving influences of sun and air.

The sowing of timothy with rye is favorably spoken of by many practical farmers: we, however, for the reasons before assigned, do not approve of the practice, unless the rye should be cut before seeding.

The fact stated by our correspondent, that a neighbor who had sown rye and timothy together, but who had applied 4 bushels of *bone meal* per acre, had succeeded with his timothy, is an interesting one, and would seem to suggest the probability that the soil of the field of our friend "Hoctberg," as well as that of his neighbor, may have been exhausted of its natural supply of phosphoric acid, which his neighbor restored in the bones which he applied to his field, and that, for the want of this, Hoctberg's timothy may have failed. This suggestion is thrown out to be availed of. Timothy requires phosphoric acid; and that abounds in bones.

6. The quotation from the essay of our whilom correspondent, "*Cincinnatus*," is appropriate—his suggestions safe. We agree with him, that if timothy be sown with rye, that the latter must be cut early, or it will inevitably kill the former. The young timothy plants cannot withstand the *stifling* of a luxuriant crop of rye, after the beginning of May; they require breathing room, a thing not to be found beneath the o'er-topping and rich foliage of a rye crop.

7. As we have before stated, in regard to timothy and clover, we will state, that if *orchard grass* and

clover be sown together this fall, the latter may outlive the accidents of winter and early spring, and do well: but we should sow the *orchard grass* this fall, and the clover seed next spring, as before advised in regard to clover.

As we have heretofore stated, and as referred to by "Hoctberg," *orchard grass* may be sown either in the fall, at the time of seeding fall grain, or in the spring, at the time of sowing clover seed on the wheat field. So far as the wheat crop is concerned, we are decidedly of opinion that it would be preferable to delay sowing, both the clover seed and orchard grass seed, until spring, when we would roll it in.

Our opinion is asked as to the expediency of sowing 1 bushel of *orchard* grass seed and 12 lbs. of *clover* seed on our friend's rye field where the timothy failed. Our reply is, we would sow the orchard grass seed and buckwheat, *early this month*, but would delay sowing the clover seed until next spring.

8. We should never dream of sowing grass seed on an unharrowed furrow. All grounds, before being seeded to grass, should be reduced to the *utmost fineness* of tilth. We should harrow and cross harrow, until the soil was so reduced; then sow the seed, follow with a light harrow, and finish by rolling.

9. As we stated in a note to Hoctberg's communication, in our August number, the cow and yellow pea of the South is identical. We believe it would mature in the latitude of Pennsylvania.

10. The seeds of *tare* and *vetch* could, we presume, be procured through the agency of seedsmen; but we think that, in broadcast *corn* for *fodder*, and *millet* for *hay*, our friend has ample resources for provender, without importing either tare or vetch seeds. An acre of land, well manured and prepared, would give, if sown with 4 bushels of corn, broadcast, 6 or 8 tons of good fodder; whereas, an acre sown with 3 pecks or a bushel of millet, would give from 3 to 4 tons of good hay, each ton of which would be equal to ⅞ of a ton of timothy.

11. A compost of 25 bushels of ashes, 10 of bone dust, (or even 5) and 2 bushels of salt, sown upon each acre in grass, if harrowed in, would, we think, *cure* the defects complained of by our friend in the York county soil. We should like him to try the experiment on a few acres, and report the result, for publication in our columns, whether that result be favorable or unfavorable.

12. Young clover, which may have been sown by *itself* on wheat, would, we believe, be greatly benefitted if, immediately after the wheat shall have been harvested, it were treated to a bushel of salt per acre, sown broadcast. *Salt*, among other offices possesses the power of attracting and maintaining moisture. We recommend this, independently of the dressing with a bushel of plaster, which every acrp of clover should receive, each spring, as soon as the leaves begin to develope themselves, to be sown while the dew is undissipated.

SINGULAR PHENOMENON.—The editor of the *Salem Gazette* is informed, by E. H. Derby, Esq., that much of the *Indian corn*, the present season, while it presents a fine appearance, *is entirely deficient in ears*. This is not only the case on Mr. Derby's own extensive grounds, but, to a considerable extent, on other estates.

The remarks on farm gates, &c., by a correspondent at Warsaw, Va., and "Q. A" are received.

REPORT ON FARMS.

The following report from the Committee on *Farms of the "Farmers' Inspecting Club of Corsica Neck,"* Queen Anne's Co., Md., will be read with much interest. The value of the example set by such men as Mr. Earle is incalculable; and they may justly be ranked among the benefactors of the age. The constitution of the Club, which was received with the report, will be published hereafter, as a model for others of a similar character which may be formed.

MR. PRESIDENT: The undersigned having been appointed, at your November meeting, to inspect the farm of the Vice President, (Mr. SAMUEL T. EARLE) beg leave to report, that they paid Mr. Earle a visit, and were highly gratified to witness the manifest improvement exhibited in every part and department of his estate.

Mr. Earle's dwelling house is an old fashioned, substantially built brick structure, and has very recently been thoroughly repaired, and very useful and ornamental improvements made therein. His yard and garden are large, well enclosed and tastefully arranged, and stocked with a great variety of choice fruit and ornamental trees, grapes, flowers and shrubs. In this department, the order and arrangement exhibit striking evidence of that female taste and refinement which give to home its greatest charms.

Mr. Earle's farm contains some four or five hundred acres of land, which came to his possession in 1836; of this, he cultivated about one hundred and fifty acres; the balance was rented out for a number of years, for one hundred and seventy-five dollars. The part cultivated by himself was then tolerably productive, compared with the other, which was, for the most part, very poor.

Mr. Earle (always industrious) set himself to improve his lands, and, by his management, his crops were considerably increased; but his rented lands were growing worse, or, at best, remained stationary. These results not being exactly to his taste, he determined to discharge his tenant (though a very industrious one) and commence a more vigorous system of improvement. In July, 1845, he made his first purchase of lime, from Pennsylvania, (and this, by the way, is the only lime which he has applied without very marked effect.) Since that time, he has purchased and applied nearly fifteen thousand bushels of lime, of different sorts; every shovelful of which, with the above exception, tells to advantage in the increased crops, so far as the land to which it has been applied has been cultivated; and where it has not yet come into cultivation, the appearance of the grass and soil give promise of augmented crops in future.

In September, 1846, he applied one and a half tons of Peruvian guano to his wheat crop, by way of experiment. The result was so satisfactory as to induce him to purchase four tons, the succeeding autumn, which was also applied to his wheat. This produced such obviously good effect, so early even as February, as to convince him of the surprising properties of this manure as a fertilizer. Acting upon this conviction, with a boldness and decision which mark his character as a farmer, Mr. Earle purchased eight tons of guano, last year, and applied it to his corn crop. So heavy an expenditure upon so unpromising a field might have been, and

no doubt was, thought by some to be almost an act of rashness; but your committee had the pleasure of seeing a heavy crop of corn upon lands which were known to them to be almost worthless previous to this dressing; indeed, a part of this field had been abandoned as too poor to pay the expense of tillage—given up to hens' nest and poverty grass, and producing a scanty crop even of these: upon this very portion we saw a luxuriant crop of corn, ample not only to pay for the cultivation, but to pay for the manure also. Mr. Earle has applied four tons of guano to his growing crop of wheat; and, up to this time, the good effect is distinctly visible.

Of the permanency of the improvement of the soil by guano alone, your committee cannot speak with confidence; but when they see, as they have done upon Mr. Earle's farm, hill sides and galls and recent sedge fields covered with heavy crops of corn, and clover and other grasses taking the place of poverty and hens' nest, they cannot resist the opinion that every owner of poor land (who has the means) cannot employ his capital to more advantage (at least for the beginning of a system of improvement) than by purchasing and applying guano. Mr. Earle has expended about two thousand dollars, within the last three years, for guano and lime alone, to say nothing of grass and clover seeds; of this, he has sown about thirty bushels the last year; and he considers himself amply repaid already by his increased crops of grain. And your committee are of opinion that the intrinsic value of his lands has been increased fifty per cent. His crops even, upon the best portions of his estate, have been doubled; and upon the farm which rented for one hundred and seventy-five dollars, (and not deemed by some cheap at that) he has raised grain the last year worth fifteen hundred dollars.

In view of these results, your committee are of opinion that Mr. Earle's exertions for the improvement of his estate have been most satisfactory and successful, and should encourage him (as we have no doubt they will) to persevere until his fields shall be as rich as a garden.

The farm buildings upon the home farm are in excellent order and repair. His pounds show that he has not been unmindful to husband his resources of manure. The houses upon his outer farm are indifferent; but his increased and increasing crops there will not only justify, but demand, improvement in that respect, and that very shortly.

The day being short, and only two of your committee having attended, our examination was not so minute, in some respects, as we could have wished: this must be our apology for the omission to mention Mr. Earle's stock, his poultry, &c. But, from what we saw, as well as from what we know of Mr. Earle as a farmer, we feel justified in saying, we consider him one of our very best members—one whose practice and industry we may all imitate with profit.

Respectfully submmitted,

JNO. C. RUTH,
P. F. T. BLAKE,
THO. C. BROWNE.

Inflammatory Rheumatism.—A gentlemen wishes us to publish the following, for the relief of suffering humanity. He says he has known a number of cures by it, and all of whom within a short time:

Half an ounce of alum, half an ounce of pulverized saltpetre, put in half a pint of sweet oil. Bathe the parts affected, when a sound cure will be speedily effected.

The paper from the pen of Mr. Ruffin, in our July No., has attracted, as we were satisfied it would, unusual attention to the subject of the profits of farming in the State of Virginia. It has, moreover, been the means of introducing our paper most extensively into many counties of that State where, before, it was but little known, and has, consequently, caused a heavy increase to our subscription list. We have no doubt that this interest will be still farther induced by the publication of the paper promised us by Mr. *Newton*, of the results of his own farming, which we, with our readers generally, are anxiously looking for, and would be gratified to receive in time for our October No. We thank Mr. Bridges for his kind offer to aid in the extension of our journal. Many of the most eminent men of that, as well as of the adjacent States, are interesting themselves in a similar manner in our behalf, believing that they are thus rendering a public benefit.

CAROLINE Co., Va., July 5th, 1849.

To the Editor of the American Farmer.

Through the kindness of the Hon. Willoughby Newton, I have been put in possession of the July No. of the "American Farmer," which contains the valuable and interesting article of Mr. Ruffin, on the value of marl and estimates of his farming operations for several years past. It is my first acquaintance with your publication, and am so much pleased with *it*, that I have concluded to become a subscriber. I shall remain in pleasurable anticipation for the promised communication of Mr. Newton.

Should an opportunity offer, please present my thanks to Mr. Newton for the favor shown me. I think many farmers in this section of country would be pleased to have your "Farmer;" therefore, if you wish it, I will interest myself in endeavoring to extend its circulation, and thereby its usefulness.*

I am, very respectfully, yours,

R. M. BRIDGES.

*We have since received from Mr. B. upwards of 50 subscribers.

APPLICATION OF SHELL MARL TO SANDY LANDS.—Judging from the friable nature of what is termed *shell marl*, and *shell mould*, we are inclined to believe, where either may be applied to sandy lands, or sandy loams, that the value of the application will be greatly increased, *by thoroughly mixing an equal quantity of clay with it.* By such preparation, a degree of tenacity will be imparted to the texture of the soil, which will enable it the better to resist the evaporating influence of the sun and air, while it will, also be invented with the capacity of retaining moisture, as well as that of husbanding such nutrient manures as may, from time to time, be applied, and thus prevent that rapid exhaustion of such soils to which they are naturally subjected from the want of cohesive powers.

In the application of lime, too, to such soils, if the same precaution were observed, the best results would flow therefrom, as by the change, which would be thereby effected in their constitution, a competency to *hold* and maintain manures, would, to a considerable extent, be secured them; properties which all intelligent culturists very readily appreciate.

AMERICAN FARMER.

BALTIMORE: SEPTEMBER 1, 1849.

TERMS OF THE AMERICAN FARMER.

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At the *State Agricultural Society Rooms*, No. 128 Baltimore st. over the "American Office," 5th door from North-st.

OUR PRIZE ESSAYS.

EXTENSION OF THE TIME FOR RECEIVING THEM.

To avoid the inconvenience which would necessarily arise to the gentlemen appointed to examine the essays for which we have offered prizes, to act in concert, without a sacrifice which we have no right to ask, we have, upon due deliberation, determined to change the time limited for the receipt of the essays from the 1st of September to the 1st Saturday in OCTOBER, so that the Judges may consult together whilst in attendance at the STATE FAIR, and be enabled to make their decision, so that the presentation of the PLATE, (now preparing by Messrs. Kirk & Son,) may take place at the same time the Prizes of the State Society are distributed. This will also give additional time for competitors.

We renew the publication of the offer, and add the names of the Judges upon each subject, viz:

No. 1, For the most approved essay on the best plan of Farm Yard buildings, and the management of the Farm Yard, having in view, economy in time and feed, and the entire arrangement and convenience of the same,—with drawings, on a scale suitable to the pages of our journal,—a piece of Silver Plate, of the value of **$50.**

Judges.—Hon. Wilson M. Cary, of Md., Edmund Ruffin, esq., of Va., Hon. D. W. Naill, of Md., Hon. Charles A. Baraitz, of Pa., and M. T. Goldsborough, esq., of Md.

No. 2, For the most approved essay on the culture of Tobacco, the soils and localities best suited to the plant beds, the mode of preparing and manuring the beds, the *time* and *mode* of sowing the seeds, the manner of protecting the young plants as well from frosts as from insects, the period and method of setting them out, the soil and situation best suited to the growth of tobacco, the manures best adapted to promote its growth, the best method of cultivating it, the distance at which the plants should be set apart, the time of priming, topping and suckering, the most approved implements used in such processes, as well as the manner of performing each, the best method of worming, the *time* for, and *mode* of cutting, the best method of *housing*, *curing*, *stripping*, *pressing*, the best sized hogsheads and the most suitable material or wood from which to make them, as also, whether it would not, under the present circumstances of the tobacco trade, be to the interest of the planters to decrease the quantity grown, and introduce the culture of other agricultural products, and if so, what kind, **$30.**

Judges.—Hon. H. G. S. Key, Jno. G. Chapman, John S. Sellman, and Gov. S. Sprigg, of Md., and Judge Wm. Daniel, of Va.

No. 3, For the most approved essay on the management of the DAIRY, whether the making of butter or cheese is most profitable, what breed of cows is best adapted to the purposes of each, the kind of house most suitable for each, the best processes used in the making both butter and cheese, the best utensils used in either manufacture, the best kind of grasses to form the pastures whereon to keep the cows, in spring, summer and autumn, the food best adapted for winter, the mode of preparing, packing and keeping butter, as also whether the dairy business could not be advantageously increased, and to what extent—whether *cellars* or *spring* houses are best calculated for making first quality butter, how either should be constructed and furnished, what degree of temperature it is desirable to preserve in either, to ensure facility in churning, and how many times in a day the cows should be milked, and at what hours, **$20.**

Judges.—Hon. Wm. Carmichael, Col. H. Capron, and Hy. Carroll, esq., of Md., P. Holcomb, esq., of Delaware, and Gen. Bernard Peyton, of Va.

All essays, presented for competition, whether successful or otherwise, to be at the disposal of the Editor, the author having the privilege of withholding his name, if desired.

The Essays to be handed in by the 1st Saturday of October next, and the publication commenced in the Nov. No. of the American Farmer.

SAMUEL SANDS,
Publisher of the American Farmer, Baltimore, Md.

"THE FARMER FUND."

The State Agricultural Society, at their meeting in May, proposed to raise by voluntary contributions, (no one to contribute more than $1,) the sum of **$100**, to be expended in the procurement of

THREE PIECES OF SILVER PLATE,

to be presented to persons obtaining *new* subscribers to the *American Farmer*, for volume 5, viz:

1st, for the largest list, plate of the value of			$50
2d, for the next largest list,		do	$30
3d, for the third	do	do	$20

IN ADDITION TO WHICH THE PUBLISHER OFFERS:

4th, for the 4th largest list, agricultural books, valued at			$12
5th, for the 5th	do	do	$6
6th, for the 6th	do	do	$5
7th, for the 7th	do	do	$4
8th, for the 8th	do	do	$3

The names and cash therefor to be received up to the 1st of October, when the successful competitors will be announced, and the names of the contributors to the fund will be published in the Farmer for November, and the prizes presented at the Cattle Show. The President and Secretary of the State Society were appointed and authorized to receive contributions to the fund.

☞ The plate for the above prizes is now in the hands of Messrs. Kirk & Son, of this city.

The list of subscribers to the "*fund*" is not yet full.

T. S. P. on the use of GUANO, a most valuable paper, we regret exceedingly, was received too late for this No.—it will appear in our next.

EDITORIAL ITEMS.

MONTGOMERY CO.—A. B. Davis, Esq., President of the County Society, announces in the Rockville Journal, that the Hon. *Elisha Whittlesey* has consented to deliver the address at the Agricultural Fair, to be held at Rockville, on the 13th and 14th September next.

The publisher of the *American Farmer* expects to be in attendance at the Exhibition, and will be ready to receive the dues of those of his Montgomery friends, who may be indebted for subscription, and also the names of those who may wish to subscribe for his journal.

FAIRFAX (Va.) AGRICULTURAL SOCIETY.—The first Agricultural Exhibition of this young society, will be held at Fairfax C. H. on the 23d of October. The Fairfax News contains the list of Prizes to be awarded on the occasion, which are on a very liberal scale. The Society have done our journal the honor to offer copies of it for 13 of the prizes. We wish the members all success in their laudable endeavors to improve the agriculture of their county, and they will no doubt in a very short period realize the advantages which are sure to accrue to any district of country in which such associations are formed.

DEVON CATTLE.—It will be seen by the advertisement of Mr. Baily, that in addition to the other attractions at the Montgomery Co. (Md.) Fair, on the 13th and 14th September inst., there will be an exhibition of 30 head of Devons, which will be offered at public sale to the highest bidder. Mr. B. speaks in high terms of this lot, and we have no doubt that the sale will attract many persons to the Fair, as they are very deservedly a favorite breed of cattle, in this and the adjacent States, and are continually in demand.

EXTRAORDINARY YIELD.—Our friend, David Carlyle, esq., of Baltimore county, has placed in our hands a memorandum of the yield of 2 acres of land belonging to *Jno. Fisher*, esq., Cashier of the Westminster Bank, Carroll county, Md., which we think has seldom been excelled:

1 acre of timothy weighed 5¾ tons and 122 lbs.
1 acre, ½ timothy, and ½ English grass, 4 tons and 60 lbs.

The land was measured by the county surveyor, and the product carefully weighed the 3d day after cropping. Mr. Fisher thinks that the whole field of 10 acres would have yielded a larger average product.

This is not the only evidence of the productiveness of Mr. Fisher's farm. He has a sow which has had four litters, each just seven months apart, the smallest of which was 16, and the largest 22 pigs. We did not learn that the [illegible] was of any particular breed. He has also a cow 6 years old, which has had five calves. If any other farmer can beat this, we should like to hear of it.

MARL.—We have received from W. Bray, Esq., of Hagle Hill, Va., a box of Marl, taken from his farm, one mile from the Rappahannock river. We find on comparing it with the sample received from Mr. Ruffin's vicinity, a very great similarity. Mr. B. says that it "was taken from 5 to 6 feet from the top of the Marl—the first two or three feet has not so many shells—some very large oyster shells, sharks teeth, &c.—the marl is found from 1 to 2 feet from the surface."

MULTICOLE RYE.—We have had frequent enquiries for this variety of Rye. It has been raised by several farmers in Baltimore county, and found to be very prolific and highly approved of. It comes later than any other rye. From the assurances we have received in regard to its value, from men in whom we can rely, we deem it worthy of trial. Mr. F. C. Clopper, of Montgomery County, informs us that he will have a small lot in this city for sale early this month. He speaks in very high terms of it.

IMPROVED GUANO.—The manufacturers of this article, which has been advertised in our pages by the agent in this city, Mr. E. Whitman, jr., has sent us a few barrels of it to have tested by some of the farmers of this State, in comparison with such other fertilizers as may be commonly used. We have placed it in such hands as will ensure it a fair trial.

FARM SCHOOL.—The Agricultural School at Mount Airy, Germantown, Pa. under the direction of Mr. Wilkinson, it will be seen by the advertisement on another page, will commence its winter session on the first Thursday of October.

FAIRS.—The Fair of the American Institute, at New York, is to take place on the 1st of October. The Fruit Congress at the same place on the 2d of October.

The N. Y. State Society's Fair on the 12th, 13th and 14th September, at Syracuse.

The Fair of the Maryland Institute, at Baltimore, on the 27th September, to close on the 13th Oct.

FIRE INSURANCE.—Farmers and others are referred to the advertisement of the Baltimore Fire Insurance Co. on another page. This is one of the oldest and most substantial companies in the United States—the President and Directors are amongst the most respectable merchants and business men of our city, and every guaranty is afforded in the character of the company, to induce full confidence in those wishing to avail of the advantages afforded by a security against loss from fire.

DAGUERREOTYPES.—By the advertisement on another page, of our neighbor, Mr. C. W. Purcell, it will be seen that he is prepared to execute in a very superior style, Daguerreotype likenesses, which we can testify to, are very nearly resembling painted portraits. The rooms of Mr. P. are immediately under our hall, and we would invite ladies and gentlemen from the country, when visiting the city, to call and examine the evidences which are exhibited of the artistic skill of our neighbor.

A FARM FOR SALE.—The Rushbrook Farm, advertised on another page, is worthy of the attention of those wishing to obtain land in the neighborhood of Baltimore. It belongs to a merchant of this city, whose extensive business will not permit him at present to enjoy the retirement of a country life, as it is his wish and intention, if spared some ten years more—and not being able to give it a personal superintendance, will sell the farm on very accommodating terms, both as to price and payments.

FINE CATTLE FOR THE SOUTH.—Mr. Vail, of N. Y., recently held a sale of his blooded stock, some of which were secured by the Messrs. Burgwyn, of North Carolina, for the purpose of improving the domestic stock of their State.

KETTLEWELL'S RENOVATOR.—On our advertising pages, will be found the advertisement of Messrs. Kettlewell & Davidson, on the subject of their Renovator, to the value of which it will be seen, testimony is borne by sundry of our best and most respectable farmers.

THE RUFFIN WHEAT.—Messrs. McConkey & Co., it will be seen, is advertising a lot of the Early Purple Straw, (or as it is often termed in Virginia, the "*Ruffin*") wheat, for seed. This wheat was raised by Edmund Ruffin, esq., of Hanover Co., Va., and is very highly esteemed in that State. One extensive farmer on the James river, whose crop is usually 20,000 bushels, has purchased for *seeding* 1500 bushels of it—and in the proceedings of the Albemarle Farmer's Club, published in the last "Planter," it is highly commended. Mr. Ruffin has sown this wheat for 27 or 8 years, and has always found it a productive and *safe* crop—the frost of April injured it for the first time; nearly all of it was cut down, and the product of his farm is from the suckers, or from the previous underling plants, then too small to be in joint—and the recovery and fair crop raised by Mr. Ruffin, notwithstanding so serious a disaster, which attended the wheat crop generally in the South, speaks well for this variety.

ANOTHER NEW FERTILIZER.—See the advertisement of S. & P. E. Ellicott.

ORCHARDS.—A correspondent in Spottsylvania, Va., doubts if the directions given, in our July No., for painting the bodies of trees with soft soap, sulphur and salt, to prevent hogs injuring the bark, would be found effectual. He says that he had applied soap and sulphur, last spring, to a young apple orchard, and several of the trees were barked by the hogs, which had not been the case prior to the use of the mixture, though the hogs had frequently been confined for several weeks at a time.

Our friend and correspondent's experience would seem to settle the question that the mixture recommended by us is not effectual. But, as a great object to be attained by the application of the mixture is *the destruction of insects*, its utility is still obvious.

BURNING SHELL LIME.—A subscriber, in South Carolina, asks for the best plan of a kiln for burning shell lime, with the quantity of wood required to the hundred bushels. Will some of our correspondents furnish us with the desired information. We understand that the best shell lime can be furnished at Charleston at 8 cents per bushel; and if taken from the landings where it is burnt, it can be furnished at 6 cents per bushel.

ARTIFICIAL GUANO.—*M. Didaux*, of *Paris*, has manufactured an artificial guano, which has been pronounced as being nearly equal, in its fertilizing qualities, to the natural or real article. This may be so; but, for our part, we would prefer the *genuine* to any and all imitations; as we hold it, that a manure which, like guano, will, with an application of 400 lbs. to the acre, make an old sedge field produce from 18 to 20 bushels of good wheat per acre, has virtue enough in it for our use.

THE FARMER AND THE LADIES.—We are highly flattered with the notice of our journal contained in the following note from an old patron and most excellent farmer, in remitting his subscription, more especially as it assures us of the estimation in which it is held by the ladies, for which we most heartily respond, "*God bless them*":

"WYE, July 28th, 1849.

I must congratulate both you and the community at large as to the increasing patronage of the Farmer. I assure you the first of every month is looked for with great pleasure, for we are sure of a *good treat* in the Farmer; and it is not confined to the male part of a family; the ladies (God bless them) will scarcely let us peep into it, until they have completely devoured it. Yours, truly, E. T. P."

AGRICULTURAL AGENCY.—We refer those w[ishing] ing improved breeds of Cattle, Sheep, &c. fro[m] North, to the advertisement of Mr. A. CLEM[ENT]. Mr. C. has furnished many of our friends with animals and fowls, and has given very general isfaction in his selections. He contributed largely to our Show last Fall, and we are gl[ad] to learn by the annexed extract from a letter t[o] Editor that he will be with us again at the e[n] exhibition. Those who may be able to accep[t] invitation to attend the Philadelphia Fair, wi[ll] doubt receive a hearty welcome; and as a proof our good friends of the Keystone are capab rendering their guests *comfortable*, we would r[e]fer to the graphic description presented us by "*Pa[t]ent Planter*," in the last volume of the Farmer, the visit of Marylanders on a former occasion.

PHILADELPHIA, August 6th, 184[9]

"I will send you one of the bills, containing [a] of the premiums offered by the Philadelphia So[ci]ty for promoting agriculture. On behalf of [the] members I can truly say that we should be glad see you, and as many of our brethren Farmers Maryland and the adjoining States, as feel disp[osed] to favor us with their good company. I will pr[o]mise to do all in my power to make them comfort[able]

It is my intention to be with you at Balti[more] during the time of your Exhibition, as I feel l[ittle] doubt but you will have one of the best ever se[en] the United States. I will endeavor to add some[thing] to the list. With great regard, yours,

AARON CLEMENT.

ACKNOWLEDGEMENTS.—We are indebted to *Johnson*, Esq., Secretary of the N. Y. State Agricultural Society, for a copy of the Transactions of the Society, for 1848, being the 8th volume. This volume comprises nearly 1,000 pages, and embraces also an abstract of the proceedings of the several County Societies of New York. We hope to see a similar publication emanating from the State Society of Maryland. The great press of matter continually upon our pages will debar us hereafter from publishing *in detail* the proceedings of the various societies and clubs, and the addresses emanating therefrom, (except those of the State Society) which, however, should be preserved in a durable form. We suggest the matter to the consideration of the State and County Societies. The "Transactions" are placed in the Society's Reading Room. It is one of the most valuable works ever published; and we wish that a few copies of it were placed in the library of every agricultural society in the U. States.

We have received from Dr. *Edward Baker*, of this city, a copy of the Norfolk (Eng.) Chronicle, of 21st July, which contains a full account of the annual meeting of the Royal Agricultural Society of England. Upwards of 23 of its broad pages are filled with the account of the exhibition, list of prizes awarded, stock and implements on the ground, and the speeches delivered at the annual dinner. It is a very thrilling description of the great festival of the Royal Society, and would interest every farmer by a perusal. The paper is left at the Society's rooms.

aryland State Agricultural Society.

BALTIMORE, August 1, 1849.

The quarterly meeting of the Board of Managers held this day, at the hall of the Society, in this In the absence of the President, GEO. W. ..., Esq., Corresponding Secretary, was called he chair.

The Secretary presented a letter from *Chas. B. ert*, Esq., President of the Society, stating his ssary absence from the meeting, and urging n the members of the Board to complete the ar-gements for the Fall Exhibition, the collection unds, &c.

M. Goldsborough, Esq., of Talbot, from the Com-ee on Finance, moved that the committee be horised to appoint sub-committees in each county the State, including Howard Disirict and the city Baltimore, and also for the District of Columbia, the purpose of raising funds for the Society, ich was adopted.

The chair proposed that the reports heretofore ected to be made to this meeting be deferred to annual meeting, which was concurred in.

A letter from S. Hambleton, Esq., V. Pres. for bot county, was received, stating that he had before the Societies of his county the circular the President of the State Society, recommend-the appointment of a committee to act in asso-ion with the V. Pres., to superintend the trials ll such implements as may be submitted to them examination, and to make a report of the result reof to the State Society, and that the following ned gentlemen were selected in accordance ewith, viz: Matthew T. Goldsborough, John Martin, Wm. R. Hughlett and Thos. O. Martin, s. Mr. Hambleton also enclosed a letter from n. H. Harrison, Esq., on the subject of the loss sheep by dogs. In consequence of his advanced e, Mr. Hambleton asked to resign his office as e President of the Society, but to continue his mbership therein, and recommended, as his suc-sor, Col. N. Goldsborough; all which was con-rred in.

A letter was received from Dr. *Jos. E. Muse*, V. es. for Dorchester county, also in reply to the cular of the President, appointing Jno. C. Henry, m. T. Goldsborough, Wm. L. Hearn and Caleb pherd, Esqs., as the committee, in conjunction h himself, which was read and concurred in by Board.

A letter from *J. T. Earle*, Esq., V. Pres. for een Anne's county, was likewise read, in which Walter S. Turpin, Col. John B. Emory, Sam'l Earle and Jas. Tilghman, of John, Esqs., were pointed, in conjunction with himself, as the com-ttee for his county, which was also concurred in.

N. B. Worthington, Esq., of Anne Arundel, ved that the President of the State Society be thorised to appoint all committees, and take such her action as he may deem necessary to carry out e objects of the Society in holding the Fall Fair, ich was concurred in.

Mr. Goldsborough moved that the report of the mmittee on Chappell's salts, which was to have en made to this meeting, be published, when re-ved; which motion was adopted.

Mr. *Sands* offered the following:

Resolved, That the general meeting of the State ciety be held on the 9th day of October next, at o'clock, P. M., at the Hall of the Society, in this y, which meeting to be in lieu of the annual meeting; and that a proposition be then made to alter the Constitution, so as to make the annual meeting conform to the period of the annual exhibition; and, moreover, that the officers of the So ciety, for the ensuing year, be elected during that session of the Society; which was read and adopted.

R. McHenry, Esq., of Harford, offered the following resolution, which was adopted:

Resolved, That the committee, appointed at the last quarterly meeting of the Board of Managers, charged with the preparation of a memorial to Congress, on the subject of an appropriation of the public domain, be instructed to report the draft of said memorial to the general meeting of the Society, to be holden the 9th of October next.

Mr. *Walsh*, of Harford, from the committee appointed to select the site for holding the exhibition, made a partial report in relation thereto, and asked for further time to accomplish the object of their appointment, which was granted.

The meeting then adjourned. By order,

SAMUEL SANDS, Rec. Sec.

THE CRY IS STILL THEY COME!—During the past month, new subscribers have poured in upon us from all quarters of the Southern and Middle States, but the "*Old Dominion*" is going it with a rush—we have received considerable additions from the counties of Pittsylvania, Albemarle, Orange, Caroline, Richmond, Petersburg, Brunswick, Hanover, King Wm., King and Queen, Henry, Essex, Surry, Goochland, Spottsylvania, Culpepper, Louisa, Mecklinburg, Campbell, Prince George's, Dinwiddie, Middlesex, Wythe, King George's, &c.—One gentleman who received the first two numbers of the volume, in a few days sent us a large list from Caroline—he remarks: "You will no doubt be surprised at the success that has attended my efforts in so short a time. It shows that our farmers are aroused, and ready to lend their aid in the advancement of agricultural interest"—and adds, that he will endeavor to obtain an additional number, and desires to be considered a competitor for a *premium*. From the Old North State, too, from Louisiana, Tennessee, &c., we have also numerous additions—and our own good old commonwealth has furnished her full quota: Montgomery, Somerset, Talbot, Washington, Anne Arundel, Calvert, Harford, &c. have considerably increased the list. We have many patrons in Worcester, Dorchester and Caroline, but we ought to have an increase from that quarter. Our support from Cecil, we regret to say, is very limited—Alleghany and Carroll do.—in Frederick we have many subscribers, but the proportion is not equal to most of the smaller counties of the State—can't our friends in that populous and wealthy county aid in extending our circulation there?—by a little exertion we have no doubt, much could be accomplished—Prince George's has supplied her full quota—but from Charles and St. Mary's we would like to hear a little oftener. From present indications, there is some reason to anticipate that our Virginia list will nearly equal that of our own State before the expiration of the year—and she will certainly carry off some of the prizes offered for the largest lists.

Louisa Co., Va.—The facts which are developed by the publication of extracts from letters received by us of the tenor of the annexed, will be our apology for presenting so many of them to our readers. We are gratified at the evidence which they afford of the arousing of the farmers and planters to their true interests, and the assurance which is given of the increasing prosperity of the old States:

Ashland, Louisa Co., Va., Aug. 12th, 1849.

Dear Sir:—Enclosed I send you ten dollars, being the subscription of the following individuals for the 5th volume of the American Farmer.

I am pleased to find that your valuable paper is being more fully appreciated in various parts of our country, but more especially am I gratified to see new subscriptions flowing in so freely from my native State, as I take it to be a sure index that the "spirit of improvement is abroad" in the Old Dominion."

The citizens of the larger portion of this county are but just aroused from their lethargy, and are beginning to see to what extent their lands may be improved by a judicious and energetic system of agriculture. Believing that a more general circulation of your paper amongst us will be the means of increasing the interest now taken in the improvement of our lands, I trust that we may be able ere long to make a further addition to your subscription list. Very respectfully, John L. Burruss.

A subscriber at Norfolk, Va., thus addresses the Editor of the Farmer, on the occasion of forwarding the names of some new subscribers: "Though I cannot hope to take the premium for the largest list of subscribers, yet I promise you to do what I can to extend its circulation in this part of our State.

"On my farm I have a large portion of worn-out land. This fall I shall undertake its renovation, by the use of marsh mud and lime, and if in the course of a year or two, I can swell your list of subscribers large enough to induce a visit from you, I hope to be able to show you the "dead acres brought to life."

Virginia.—A gentleman at Loretto, Va., forwarding us the cash for thirty new subscribers to the Farmer, gives the following evidence of his appreciation of the value of our journal:

I have paid for all the subscribers, with the understanding that if, at the expiration of the year, they are not fully satisfied with the paper, to keep it without paying for it. There are some who would not be without it for five times the cost. With best wishes for your success, yours &c., J. S.

A number of others of our patrons have assured us that they have made the same offer to new subscribers whom they have induced to take the paper.

Somerset Co., Md.—A subscriber in Somerset, in remitting us the cash for a batch of new subscribers, gives us the following gratifying intelligence of the progress of agricultural improvement in that county:

"Old Somerset is about to wake up, and the renovation of worn-out lands has begun; lime kilns can be seen on a number of farms, and stone lime in heaps like banks of snow—a wonderful change in twelve months. This speaks volumes for the American Farmer and its glorious essays."

Crops in North Carolina.—A subscriber in Co., N. C., sends us $5 for his own, and new subscribers to the Farmer, and adds:

"Those who have read the Farmer are pleased; it is doing much good; but the old dice of book farming is hard to overcome. wheat crop was almost an entire failure wit rust. Our corn crop is greatly injured with the falls of rain; the product will be consider shortened. I should like to visit your fair o 11th, 12th and 13th of October."

We expect not only our correspondent, but others from the Old North State, to be with our October exhibition. We have intimations various quarters of Virginia and North Carolin a determination to be here on the occasion alu to. We can only assure them that they will regret their visit, but will be induced to re the following year, with additional company.

Marsh Mud.—The fact stated in the anne paragraph, addressed to us from a subscribe Norkfolk, Va., is of some importance; and if of our readers have noticed a similar result, o contrary effect, we would thank them to comm cate the same to us:

"The frost which we had on the 15th of killed all the garden peas in this vicinity, with exceptions. All my peas were killed, whilst a neighbor of mine, who had a large crop, was hurt. I was much puzzled to find out why I fered, whilst he escaped; and I now think I the reason: He mixed with his manure a portion of marsh mud, and his crop of peas not hurt. The other person who escaped the had put a large quantity of sea ore (or mud) o land, and he escaped entirely; whilst persons 300 yards off had their pea crop destroyed."

The Florence Wheat.—In the September of the Farmer, of last year, page 75, will be fo a particular description of the wheat noticed in annexed note, from Mr. Berkeley, in which stated that it produced 5 bushels to the acre than any other variety, and was the first to ripe

To the Editor of the American Farmer.

Dear Sir:—I have for sale 750 or 800 bushe my Florence wheat, of which a description published in your paper last year. I am as pleased with it as ever, still considering it the desirable wheat that I ever saw. If application made early I will deliver it in Alexandria, at $ per bushel. We made this year 1150 or 1200 bu els of it. It escaped the fly, while wheat of o kinds adjoining it was much injured.

Yours Respectfully,
Edmund Berkley.

Aldie, Loudon county, Va.

EXPULSION OF THE GRAIN WEEVIL.

Mr. Walsh, our Consul at Paris, in a letter to the *Journal of Commerce*, says, that "the chief direct of the hospital of the city of Seno (France) has vised an easy method of expelling the *weevil*, ravages of which pest he estimates at twenty m lions of dollars annually in the barns of Europe.

It is to be regretted that Mr. W. had not comm nicated in what the "*method*" consists, as the m mention of the discovery, though it adds another pre-existing facts, does not tend to render it a val ble, in an agricultural point of view.

INFORMATION WANTED.

We should be thankful to some of our able correspondents to respond to the author of the subjoined letter. As to ourself, we are at a loss to prescribe any plan of improvement promising the *permanent* resuscitation of our friend's lands, and such as may be similarly situated, without the aid of lime, in some of its forms. He states, there is no *marl* in his region of country, and cannot obtain lime at a rate to justify its application; but does not state either the distance of a supply of lime from his estate or the price; but we will remark, that if it be within twelve miles, and the price not more than twenty or twenty-five cents per bushel, it would pay for the application. If *fish* abounds in the *Nottoway* river, and can be caught in large quantities, their application would answer as a very good substitute for lime, as, besides the calcareous element found in their *bones*, phosphoric acid also is to be found therein; while in their *meat* will be found an active nutrimental manure, eminently calculated to infuse life and vigor into all vegetable productions grown on soils to which they may be applied. *Ashes*, if procurable, may be substituted for lime, as in their composition a very large per centum consists of lime. In the mould and leaves of his woods—in his marsh mud, whether fresh or salt—in the weeds of his fields—in the bushes which infest his fence corners and sides, and in the under growth of his woods, he has resources possessing mineral riches which, if gathered and applied to his soil, will tend to their improvement. But, in addition to the use of all these meliorators, he must *abandon* his *skinning* process in the preparation of his land for culture. If he ploughs 4 inches in depth *now*, let him, the coming season, turn up 2 *inches in depth more*, mix the inverted subsoil thoroughly with the surface, and so continue, from year to year, until he creates a soil of 8 or 10 inches in depth. In the subsoil heretofore undisturbed, there may be deposits of *potash*, which require nothing but the action of sun and air to liberate and utilize it for the growth of his crops.

Bone earth, plaster, guano, agricultural salts and *fertilizers*, will bear the cost of purchase and transportation, if lime will not, and should be availed of. His lands once brought into a condition to grow *clover* luxuriantly, if that plant be introduced into his rotation of crops, may, by even *five* bushels of lime and *one* of plaster per acre, be maintained in good heart, if these minerals, in the quantities named, be annually applied to that portion of them which may be in clover; and especially will such be the case if he treats it also to a bushel of plaster and one of ashes per acre. In the absence of ashes, 5 lbs. of potash per acre, dissolved in water, and mixed with the barn yard manure, will very readily supply the place of the ashes.

Nottoway Co., Va., July 18th, 1849.

I was very much interested in the paper of Mr. Edmund Ruffin, of our State; but I am sorry it cannot be of any great *practical* utility to me and those who live in this section. We have a soil surpassed by few in original fertility, but it has been *skinned*, (to use a significant phrase) and we have no marl; nor can we procure lime at a rate that would justify its application to any great extent; therefore, none of your excellent essays on the improvement, so valuable to some, have applied particularly to us. I wish some able writer, living in a country situated like ours, fitted for the task, would give some light to us who especially need light, in order to keep up with the spirit of the age. Could our lands be highly improved, I see no reason why they should not be as valuable as any I have ever seen; and I have travelled over the greater part of the Southern States. Particularly do I need instruction, having a large farm, which must be improved, in order that it may prove profitable. Therefore, you would confer a great favor on us in this section to procure the labors of any one you know qualified to give us light; and I have taken the liberty to make this request, because you have seemed always glad to afford instruction and speed the progress of agricultural reform.

Hoping you continued success in your labors,
I reman yours, sincerely,
Richard Irby.

Operation of Lime.—"Lime attacks and destroys both animal tissues and vegetable substances with rapidity, and without the exhaustion of those noxious gases and offensive odors, which result when putrefaction goes on without the presence of lime. *Lime is valuable as a manure in soils destitute of this earth, by supplying an indispensable element to plants, and also by neutralizing acidity, dissolving silica, and decomposing insoluble organic matters, such as woody fibre, humus, peat, ulmine, &c.*" Such are the operative powers of lime as stated by Rodgers, the truth of which is borne out by the experience of practical observing men. Though expressed in few words, it covers nearly, if not entirely, the whole ground of its virtues, and cannot fail to impress every reader of intelligence with the benefits which must accrue to agriculture from its use.

Let us see what the offices performed by lime are. Lime, in the first place, forms a necessary constituent element of almost every vegetable body that grows, its presence in all soils, is, therefore, essential, and hence, where, by a long course of culture, it may have been abstracted from the soil, that is carried off by the crops grown thereon, it becomes indispensable that it be re-supplied to the earth, in order that the plants may thereby be enabled to derive one of their component parts. As the portion of lime which enters into the composition of the crops grown, is limited, it is not absolutely requisite that large applications of lime should be made at any one time. Indeed, in very poor soils, deficient in vegetable matter, it would be injurious to apply more than 25 bushels, per acre, at a single dose, and it is fortunate for the economy of means, that subsequently, applications of five or ten bushels a year, will answer every purpose of gradual improvement, until the quantity applied shall have

reached a hundred bushels per acre. On lands in moderate heart, *fifty* bushels may be given, per acre, for the first dose, whereas, in strong lands, well filled with vegetable matters, *one hundred* bushels per acre may, with perfect safety and evident advantage, be applied at a single dressing.

Secondly, Lime neutralizes any accumulations of acid bodies found in the soil, and converts what may be considered as poisonous, into healthful substances, thus transforming the nature of noxious matters, which may have theretofore exerted an injurious influence upon vegetation, into agents eminently salutary in their tendency in the growth of plants—it sweetens, as it were, the earth, and prepares it to grow a higher order of plants than had previously grown thereon.

Thirdly, Lime dissolves silica or sand, and prepares it to form with the potash of the soil, the *silicate of potash*, that substance which forms the outer crust of corn stalks, of grain, and of grasses generally, without the aid of which, they could not stand erect and mature their fruit and seeds.

Fourthly, Lime *dissolves* the inert vegetable remains of the soil, and converts all such substances into nutritive manures—converts into the food of plants, that which had previously been of no avail, whatsoever, in the culture of the land. In a word, in this connection, lime performs the same office as does a skilful cook—it prepares the viands, and, by the savoriness of the dishes, whets the appetites of the plants and tempts them to eat and grow fat.

Such are among the beneficent offices of lime, but we would desire to impress this truth upon our readers: with all its meliorating effects, it is useless to apply lime to wet, sobby lands, until they shall have been previously drained and relieved of their excess of moisture.

GOV. SEABROOK, *of South Carolina*.—The semi-annual meeting of the S. C. State Agricultural Society was held on the 18th July, Gov. *Seabrook*, President of the Society, in the chair. Various prizes were awarded; among them, a silver medal to Mrs. Picket, for a very fine specimen of sewing silk, and another to Mrs. W. S. Gibbs, for raw silk, &c. Among the resolutions adopted, was the following:

Resolved, That his Excelleney the Governor receive the thanks of this meeting for his visit at this time, for the dignified manner in which he has presided at our meeting, and for the support he has always given to the agricultural interests of our country.

Gov. Seabrook, after the applause subsided, replied in a very feeling manner to the resolution and its reception, and alluded to his endeavors, for more than twenty years, to advance the agricultural interests of the State. "He spoke encouragingly of the condition and prospects of the Southern planter in comparison with the planters of the North, and scouted the idea that there ever could be an over production of our great staple, cotton, as the opening fields of consumption far outstripped the advance in production. That the number of acres upon which cotton could be successfully grown could be counted, whereas the area of its consumption was bounded only by the limits of our globe."

We have noticed, ever since our connection with agricultural pursuits, the deep interest evinced by Gov. S. in every thing tending to advance that interest in the State over which he has been called to preside; and the tokens of approbation with which those labors had been received must have been of the most gratifying character.

INFORMATION WANTED—PROPER DIVISION OF A FARM INTO SHIFTS—FENCING, &c.

An esteemed correspondent desires information upon the several subjects indicated by the subjoined extract from his letter. The matters upon which he treats are highly important; and we appeal to some of our numerous and able correspondents to favor us with communications, in order that the information sought may be obtained.

As to the adaptation of guano as a manure for watermelons, there can be no question. We believe it would prove one of the best that could be applied—that it would cause the vines to grow luxuriantly; but whether it would also cause them to mature their fruit *earlier*, we are not prepared to say; that question can only be determined by actual experiment; and, as the subject is one of much interest, we trust, through the enterprise of our friend and correspondent, to have it settled, next season, by a fair test: should he do so, he will have the honor reflected upon him of having mooted and determined a point of great moment in the economy and use of this most excellent fertilizer. We will further remark that, in our opinion, 100 lbs. of guano would be sufficient to manure the number of hills usually standing on an acre of land in melons. In saying this, we have allusion exclusively to a single crop, and intend that the guano shall be applied in the hill. Our correspondent says:

"I see, in your June No., you have offered premiums upon several interesting subjects; but there is a subject which I have never seen discussed in your paper. I have always been on the watch for something in relation to it; and it is one which, I think, is quite as useful and interesting as any you have offered prizes upon. *I allude to the subdivision of the farm by cross fences*. What is the best mode of dividing the farm, having in view the raising of clover for the improvement of the land, the keeping a good pasture, for milch cows at least, and economy in fencing, which is one of the heaviest items of farm labor? Here, in Charles county, the usual mode of dividing is into *three* fields; but this system is incompatible with clovering, for you are obliged to turn your cattle upon the clover too soon. More than three fields would be objectionable on account of extra labor in fencing, and extra consumption of fencing material. To enclose all the arable land under one fence is, perhaps, best for the improvement of the land; but it would deprive you of the comforts arising from the dairy, for want of pasture:

In fine, sir, I know of no plan which appears entirely satisfactory to me; and I think it is a subject as capable of profitable discussion as any you have set forth in your prizes; and I think, also, a prize offered upon that subject would be as productive of good as any discussed in your paper. I should like very much to see a good, practicul essay upon the subject. Generally speaking, it takes us all the winter months to do up and renew our fences; and this I consider a great drawback upon efforts of improvement of the soil; as, in that time, a vast amount of material for manure might be collected, passed through decomposition, and applied to the land. An essay upon the subject referred to should, in my opinion, have particular reference to the item of fencing.

I scarcely ever see any thing in the "Farmer" upon diseases of animals, horses, sheep, hogs, cows, oxen, &c., or any remedies for the ailments to which they are subjected. I think a column or two of the "Farmer," appropriated to things of that sort would render it a more useful paper.

I live in a section where the *watermelon* is pretty extensively cultivated for market; though, in consequence of the cholera, they are not worth making this year, and the crop is very greatly curtailed. The desideratum in the culture of the melon is to have them early, as prices are a great deal higher in the first of the season. I have never tried any of those "*high pressure*" manures, but think of trying *guano*, next year, on my melons, as an experiment, to see if it will not produce them very early. Do you think it would have that effect on melons? Would it be a good manure for melons? If not too much trouble, I would be obliged to you to notice the above questions, at your convenience."

WEST RIVER CROPS—HEDGES.

TULIP HILL, West River, A. A. Co. }
August 15th, 1849. }

To the Editor of the American Farmer.

In the last number of your paper, you requested information in reference to the yield and promise of the crops of the present year. My observations have been rather limited, but it is only by results derived from different localities that a correct opinion can be formed on the subject.

Last fall a larger amount of wheat was seeded in this region of the State than usual, but, owing to the spring drought, and a heavy rain when the plants were in bloom, the yield is considerably below an average, although I have heard of exceptions on some farms. The straw was bright, and the growth luxuriant, but the heads small and not well filled. There is also more garlic I think than for many years past.

Much of the corn looks well, but a great deal of it was planted late, which may not arrive at maturity. On the whole, however, I should say that it promises fairly.

In consequence, partly, of the early summer drought, very little tobacco was planted, and as a general rule is backward. I do not believe that the one-half of what a few years ago would have been considered as an ordinary crop is now standing, and a good deal of this must perish if we should have an early autumnal frost. Fortunately, we have so far, almost entirely escaped the visitation of the tobacco worm, which has heretofore proved to be so serious an evil.

Last year I tried the experiment of early wheat seeding, and the result may possess some interest for your Western Shore readers, where it has been but little practiced.

A field on this farm was sown on the 26th of August, and another at Rokeby, on the 27th. The grain came up well, but was soon attacked by the *fly* (as my more experienced neighbors had predicted) and presented a most miserable appearance. The first field I left untouched, but at the earnest solicitation of Mr. Tucker, the manager, I consented to the plowing up and re-seeding of about the one-half of the second field—the other portion I left undisturbed, not from any hope of its making a crop, but from a determination to give it a fair trial.

In the spring these fields wonderfully recovered, throwing out numerous thick set branches. The result was that they yielded *very much* better than any other portion of the crop of near 600 bushels seeding: all of which was put in the ground in good season, and in good order. I am so well pleased with the experiment that this year I have sown about 15 acres on the 14th inst., and should have sown more if the land had been prepared.

I have noticed from time to time in your paper, and in other publications devoted to agriculture, frequent discussions on the subject of live fences. It seems to be generally conceded that we have few, if any, materials adapted to the production of hedges. This opinion, I am satisfied from experience and observation, is unfounded; and to correct the erroneous impression is the object of this portion of my letter.

It is now nearly 30 years since my late father-in-law, Mr. Maxcy, planted a hedge of the *Pyrocanthus Thorn*, as an enclosure for the grounds surrounding his residence; it is something like a half mile in its total length, grew most luxuriantly, presenting a perfect wall of verdure, and challenging the admiration of all who saw it. Owing to his being absent from home, some fifteen years, it was much neglected, and several breaches occurred in it, greatly injuring its beauty and efficiency. A few years since I undertook its restoration, simply by *close pruning*, and have been eminently successful. It is now nearly as perfect as it ever was, and is at least equal to anything of the kind that I have seen in any part of the world. We have therefore a right to infer that it is well suited to our climate and to our purposes—in point of beauty it is certainly infinitely superior to any other hedge plant, being in the spring covered with white aromatic flowers, in the summer with dense foliage that a bird can scarcely penetrate, and in the winter with *fire red* berries (hence its name): it possesses the other and important advantage, of not struggling ambitiously, as other hedge-rows do, to attain the size of a respectable tree when it should be content to remain as an humble shrub. The contrary tendency is the great, if not the insuperable objection, to many of the thorns, the wild crab apple, the cedar, and the osage orange. The nature of those *trees*, for trees they are, can only be restrained and corrected by a constant effort. The truth is, Mr. Editor, that nature, like murder, "will out."

The Pyrocanthus, requires pruning once a year, on top and on the two sides. Its disposition—easily corrected—is to spread too much. In pruning you need not fear to cut too close, as its re-productive powers—one of its first recommendations—are extraordinary.

The berries of this thorn are gathered in the early winter, and exposed, in perforated boxes, to the wet

and cold until the next spring for the purpose of bursting the hulls which enclose the seed—these are sown, in drills, in rich well prepared beds, and if well cultivated are, in one year, fit for transplanting. In forming the hedge it is necessary to throw up a bank of rich well pulverized soil, about four feet wide and two feet high—this is for the purpose of drainage, and for restraining the latent growth. Care must also be observed to pass the water off under the plants. Then plant in two parallel rows one foot apart from outside to inside—the plants in each row, one foot apart, and the plants in the second row so arranged as to cover the openings or spaces of the first row. They will require no other care than the removal of the grass and weeds from the bank, and the replacing, in the fall, the plants that may have failed during the summer. The next summer they should be closely trimmed, in order to produce a vigorous growth. Some of the lower limbs may be permitted to grow, and may then be *layered* down in different directions, when they will speedily take root and form a compact *felt-like* mass of vegetation, through which a small dog will pass with difficulty. In about four years, if the proper precautions be observed, you will have a perfect and highly ornamental live fence, which, with ordinary care for the future, for aught I can see to the contrary, will *last forever;* for as fast as the old stems die and are removed, others will spring up in their place, thus *continually* renewing its growth. As to the annual expense of keeping it up, it cannot much, if at all, exceed the expense of a rail or post and rail fence. There is, however, one objection to this, as to other hedges: its tendency is to exhaust the neighboring land.

Very respectfully, your ob't serv't,
GEO. W. HUGHES.

DITCH BANK EARTH—COMPOST FOR WHEAT, &c.

A correspondent in Caroline county, Maryland, asks us the following questions:

1. How much soot, ashes, and salt, would be sufficient to mix with 100 loads of ditch bank, to make a good manure for wheat?

2. What number of loads of said compost will be necessary to the acre?

3. What is the price of soot per bushel?

4. What our opinion is of the efficacy of such a compost?

5 and 6. The price of guano, and relative value of *guano* over the "*fertilizer.*"

REPLIES BY THE EDITOR OF THE AMERICAN FARMER.

1. Our correspondent should mix with every 20 double horse cart loads of his "ditch bank" earth, 20 bushels of soot, 25 bushels of ashes, and 2 bushels of salt. If, however, that earth was excavated from a *salt* marsh, he may dispense with *salt* in his compost; as, in all probability, the saline principle already exists in sufficient quantity in the earth for all healthful vegetative purposes; and it might be not only useless, but injurious, if he were to increase it by a direct use of salt.

2. As is already indicated by our reply to his first question, we answer: that, if he desires to effect a permanent improvement of his land, he should apply 20 double horse cart loads of the compost to the acre.

3. There is no regular market value for soot, in this country, that we are aware of. Some few enterprising farmers, in the neighborhood of large cities, have occasionally purchased it under special contracts with sweep masters, paying from 25 to 50 cents per bushel, as they could make their bargains. Soot is a most excellent manure; and it is to be regretted that master sweeps do not, every where, preserve it: it is, however, only saved under special engagements, and cannot, therefore, be said to be a merchantable commodity, available for the purposes of agriculture. In the constituent elements of soot there are to be found nearly all the food that vegetable productions need; it is not, however, a lasting manure, and cannot be relied upon for more than one or two crops. Its most active nutrient principle being volatile, it should be fixed by plaster or charcoal.

If our correspondent can procure *marl*, we think he would find it to his advantage to substitute it, in the proportion of 200 bushels, for the articles he names, for every twenty loads of his "ditch bank" earth. If *marl* is not convenient to be procured, fifty bushels of lime, to the quantity of earth named, will answer in its stead; the value of which would be greatly enhanced by an addition of 50 bushels of ashes to every 20 loads of the "ditch bank" earth.

4. Our opinion of the efficacy of our correspondent's compost is fully expressed in our reply to his third question.

Our correspondent also asks us:

5. What the best guano can be obtained for? In answer to this, we refer to our price current.

If our correspondent purposes using guano with his "ditch bank" earth, we think *two hundred pounds* for every 20 double horse cart loads, if thoroughly incorporated, would ensure him not only a good crop of wheat, but impart fertility to his soil, provided he should sow clover seed upon his wheat, next spring; which he should do.

6. What is the relative value of *guano* over the "*fertilizer?*"

This question we cannot undertake to answer; but the result of the experiments made, and which will, probably, be published shortly, will be some guide to the formation of an opinion. Those who have made experiments should report the result.

If the land our correspondent intends improving may have been long in culture, the probability is that the crops grown thereon have exhausted the soil of its natural supply of *lime;* and hence a necessity exists for its being resupplied; for we hold it to be an incontrovertible truth, that no *permanent* improvement of worn-out land can be effected without the application of that mineral; and we hold it also to be equally true, that *clover* should enter into every system of rotation which looks to a continuance of the fertility of the soil. With *lime* and *clover*, every soil may be kept up to a condition of profitable culture: without these agents, we apprehend none can. When we speak of *lime*, we desire to be understood as including *marl* within our meaning, as it is the calcareous principle in each which gives potency to the action of either the one or the other.

CHAPPELL'S FERTILIZER.

POPLAR GROVE, Elkridge, Md., Aug. 23, 1849.

To the Editor of the American Farmer.

DEAR SIR:—Having used Chappell's Fertilizer on my Wheat crop, and as several friends have expressed a desire that I should state the result of my experience, I have concluded to do so through the medium of your paper.

I purchased twenty barrels last fall for my wheat crop, and put it on a very poor field at the rate of two barrels to the acre. I sowed clover seed this spring; the season has been very unfavorable and my crop has suffered very much from the fly; the result notwithstanding, has been very satisfactory; and I feel certain of having been fully repaid for the cost by the increased yield of wheat. I am from my experiment well satisfied of its good effect as a manure.

My clover certainly looks remarkably well, considering the very dry weather since harvest. So well pleased am I with its effect on wheat and clover that I have made up my mind to use it again this fall.

My neighbor, Col. Piper, used a large quantity of the Fertilizer, and the effect on his crop was more decided than mine, as he was not much troubled with the fly. I have examined his field and his clover looks very fine; the Col. tells me that he has ordered a large lot of the Salts for his wheat this fall.

I would remark that where the Salts were used I suffered less from rust. Very respectfully,

ISAAC P. IJAMS.

CHAPPELL'S FERTILIZER—ITS EFFECTS.

HATTON PLACE, Aug. 15, 1849.

To the Editor of the American Farmer.

DEAR SIR: Agreeable to promise to you, in my communication of April this year, and which appears in your number of this month, folio 58, I now send you the result, simply, of the application of Chappell's Fertilizer, without giving an opinion—which opinion, if adversely to the manufacturer, would, probably, be taken unkindly, as having a desire to undervalue its quality as a generator of land, &c. It is as follows: First, the utility of the Fertilizer to me, in its application to the culture of barley, proved itself of no value whatever; nor could I perceive any difference between the two grounds where the Fertilizer was used and where it was not! Secondly, where the ashes were used, thrown in broadcast, the difference was manifest in favor of ashes. Thirdly, the application of stable manure, which I omitted to mention in my last, was so self-evident, that if I had manured the whole field, and even hauled it from the city, it would have repaid the outlay and trouble attending it. However, I am not sorry for the trouble I have taken, though it be at the expense of experiment. The only thing "Fair Play," in August No., page 44, would have you believe is the proper method of ascertaining its adaptation to land—destroying and uprooting your preaching, which you have labored at for years, with the assiduity and strength of a Hercules, and all scientific researches—telling Collington, page 25, July No., and all others of his way of thinking, that analyzation is of no account, the cost too immense, &c. &c.; but put in your manure without enquiring what kind is best adapted, &c. This article comes with a shocking bad grace; and I am happy that the writer has not been sufficiently adroit to conceal his object and the sophism of his argument. Audi alteram partem.

Your obedient servant, AMERICANO.

AN IMPORTANT INVENTION—WOVEN IRON.

Messrs. *Wickersham & Walker*, of Philadelphia, have a patent right for the manufacture of *woven iron*. This improvement does away with the necessity of rivets for the purpose of fastening iron work together, where it is used for grating of any description. The manufacturers are enabled to weave iron as large as railroad bars, or the smallest description of wire. They are now applying it to the following purposes: *Iron railings, of endless varieties, embracing beauty, strength and style of finish never surpassed, for public grounds, buildings, cottages, verandahs, lawns, cemeteries, &c., in iron bridges, galleries for churches, gratings for prisons, window shutters and gratings for stores, columns and cornices for cottages, tree boxes, summer houses, guards for decks of steamboats and vessels, &c. &c.*, BEING CHEAPER THAN WOOD OR CAST IRON.

We copy the above from the *Baltimore American*, where we found it without credit. We copy it with the view of asking Messrs. Wickersham & Walker, whether their "*woven iron*" is adapted to the purposes of farm enclosures? If so, what would be the cost, post included, of a panel of fence 10 feet in length, 5 feet high? If adapted to such purposes, and a fence constructed of it be, in reality, "cheaper than wood or cast iron," we think we can promise them that orders will come upon them with a rush, as fencing is a heavy article to farmers, and cheapness and durability are considerations of deep interest.—ED. AM. FARMER.

OYSTER SHELLS FOR DRAINING.

SOMERSET, Co., Md., Aug. 10, 1849.

To the Editor of the American Farmer.

SIR: The subject of draining is an all important one with us in lower Somerset, our lands being naturally low and level, much of it not more than five or six feet above ordinary tide water. The expense and labor of thorough draining constitutes one of the greatest obstacles to agricultural improvement here, though it is one which every intelligent farmer knows must be met, or all farther attempts to improve his land will be vain and useless.

My object in troubling you with this communication is to ask your opinion upon the use of *oyster shells* as a material for constructing covered or under drains. If they will answer the purpose, they would be the cheapest, and, I think, the most durable material that many of our farmers could get; and even if, after the lapse of many years, they should decompose, they would pay well (as a manure) for removing them to make repairs in the drain.

I hope you will excuse me for trespassing upon your time, and accept my sincere regard for your happiness and welfare. A SUBSCRIBER.

P. S. The crop of wheat here, I believe, has been nearly an average one; oats cut off, I should judge, one-third: corn quite low, and does not promise an average yield.

It gives us great pleasure to reply affirmatively to the question of our correspondent. We believe

that covered drains, filled up with oyster shells to within twelve inches of the surface of the soil, would form efficient and lasting conduits for the passage of the water. While, however, he may be using his shells for purposes of draining, we would advise him not to omit to burn a goodly portion of them into lime, and top dress the land he may drain with at least 25 bushels to the acre. His lands once relieved of its superabundance of water, if treated to lime, will speedily increase the quantity and improve in the quality of their products. Lime on *wet* lands is comparatively inoperative; whereas, lime applied to the same land after being rendered dry by draining, will act efficiently, improve the texture of the soil, increase its productive capacity, as well in quantity as in kind, besides improving their quality.—Ed. A. Farmer.

BLACK HEADS IN WHEAT.

The inquiry and suggestion of our correspondent P., on this subject, in our August No., p. 57, has called forth two communications, one from R. S. H., of Woodville, the other from M. W. B., of Hagerstown. The first describes the effect of the disease thus:

"We have them [the black heads in the wheat] entirely black, chaff and all, and no grain. I view them as a fungus, and dependent upon season, &c. favoring such growth. We have very little smut in this neighborhood, and I have never seen any in my wheat, or of the "burnt corn," though we have the "black heads." They do not injure the flour in the least. "Black heads" may be the "burnt corn" in a more advanced stage."

The latter, after stating that the disease is very common in his section of country, in "*good wheat*, but not often found in an indifferent crop," states:

"It is not like "burnt corn" or "smut," for the "black heads" never form a grain. Soon after the head is fully developed, perhaps about the time of blossoming, the head turns black, "blasted," if you choose, and the whole ear (except the straw on which it is formed) becomes a fine black powder, which is easily knocked or blown off, and very much discoloring the clothes of a person passing through the wheat field. It is here generally looked upon as a sign of a good crop. I cordially unite with your correspondent P. in saying "the views of a scientific man will be acceptable to your readers."

We have before us two admirable communications addressed, by *Francis Bauer*, Esq., a distinguished scientific gentleman, to the Penny Magazine, in 1833, on "*Smut balls or pepper brands*," or the *smut* or *dust brand*, which we will give in our next. In the mean time, we subjoin an extract from a letter addressed to Dr. *James Muse*, of Philadelphia, in 1809, by Col. John Taylor, of Caroline, Virginia. Col. Taylor, as every agricultural reader knows, was esteemed, in his day, one of the most enlightened and observant farmers in our country. He says:

"You ask me the cause of the *black heads* of wheat in the forward kinds I sent you. They are frequent with us; and the forward is more liable to them than the later wheat. But in no instance have I known them to produce material injury to the crop. The infected heads perish young, and communicate no distemper to their neighbors; and the number is never considerable. Like the rust and other disorders of that kind, I *suppose it to proceed from repletion*. Most of my lands being flat, I have observed that these disorders might be infallibly produced artificially, by graduating moisture alone for their attainment, and trusting to season for wheat; and the remedies I use are, to *plough very deep* when I sow my wheat, *nevertheless covering it shallow*, and to lay the land in ridges the width of the corn rows, with a deep and narrow furrow between them. Wheat seems to me to resist these maladies, in proportion to its forwardness, because it is less exposed to the combination of heat with moisture. Early kinds are the resource against the one; draining of rain water by furrows and *deep ploughing* seem to me to be the best resource against the other."

ON THE EFFECTS OF CHAPPELL'S SALTS.

To the Editor of the American Farmer.

Several articles in your paper having appeared, calculated to disparage the Agricultural Salts made by Dr. P. S. Chappell, I have thought it but justice to him, and his article, to send a few lines relating to my experiments for the benefit of those who may be disposed to try its efficacy on their soils. From my experiments, which have been numerous, it certainly appears peculiarly adapted to mine, (which is Lime Stone for the most part,) and although much exhausted by injudicious tillage, and severe cropping, has restored it, in the last two years, to a condition of fruitfulness highly remunerative and satisfactory. Being personally acquainted with Dr. Chappell, for many years, and having implicit confidence in his high attainments as a chemist, and a gentleman of unquestionable integrity and truthfulness, I was one among the first to make trial of his "Fertilizer," (on my farm in Baltimore Co.) in the fall of 1847. I have used it liberally, say 150 barrels up to this date, on wheat, oats, corn and potatoes, and can truly affirm, with the most decided advantage to the various crops to which it was applied. I am satisfied, by careful observation and experiment, that it is preferable to the best Peruvian guano, and, as a *permanent* manure, infinitely superior; it is decidedly cheaper, and as an agent to recover worn-out or exhausted soils, I believe it to be equal to any fertilizer known to the agricultural world. I speak from *actual* knowledge, being the result of the following experiment: I have a triangular field of 5½ acres, (not limestone, a branch dividing this from the rest of the farm.) Cultivation was attempted, without the slightest success, not even a yield of clover could be had.

I had it well plowed in the fall '47; early in March, I applied, broadcast, 14 barrels of the Fertilizer, and planted it in corn about the middle of April: the result was a crop of *at least ten barrels of corn to the acre*, to the great surprise of my neighbors and myself. This spring, I put the same field down in oats and clover: the oats are harvested, and a better crop never has been raised in the neighborhood. The crop of clover now in is fine and luxuriant. I consider this 5½ acres so improved that it will be capable of bringing, next year, 20 to 25 bushels wheat to the acre. The above result, carefully noted, proves the fact most conclusively to my mind, that such is the power and vigor of this Fertilizer on worn-out or exhausted soils, that an application of 2 to 3 barrels to the acre will bring a luxuriant crop of clover, as well as a moderate crop of grain, (say 15 to 20 bushels per acre) the first year of its application, *leaving the land in an improving condition*—a result, I believe, never attributed to the best Peruvian guano. The experiments conducted on two fields of 25 acres each (limestone) have been equally satisfactory; side by side with guano, has its superiority been most fully and distinctly marked. I have now prepared a field of 18 acres for wheat, and have ordered 40 barrels of the "Fertilizer." This field has had no lime or other manure for several years; yet such is my confidence in its virtues, that I shall feel a grievous disappointment if I do not realize a remunerative crop of wheat, in addition to a well-set field of timothy and clover. I feel a delicacy in parading my name before the agricultural world; but, should any of your friends desire my name, in order to ascertain any details, you are at liberty to give it. "Justice."

DISEASES OF STOCK, &c.

REMEDIES FOR THE BOTS.

1. Drench the horse with a quart of new milk, sweetened with half a pint of molasses, fasting in the morning; in two hours thereafter, give a pint of linseed oil.

2. Mix a table spoonful of slacked lime in a bran wash, three days in succession; on the fourth day, drench with a pint of linseed oil.

3. Give a quart of new milk, sweetened with half a pint of honey, fasting; in two hours thereafter, drench with half a pint of salt, dissolved in a quart of warm water; and, in two hours thereafter, give half an ounce of powdered aloes and 1 ounce powdered rhubarb, dissolved in a pint of warm water.

4. Give the horse a ball composed of 2 oz. of Æthiop's mineral and 1 oz. of the powder of aniseeds, mixed up with a table spoonful of honey and sufficient crumbs of stale bread to form the ball.

5. Put 8 oz. each of beeswax, mutton suet and sugar, into a quart of new milk, melt it over a slow fire, and, when cooled to that point just before the wax hardens, drench the horse; in two hours thereafter, give the horse a pint of linseed, train oil, or half a pound of glauber salts, dissolved in warm water.

6. Drench with the following mixture: Half a gill of each of the following ingredients, vinegar, soft soap, gin and molasses.

7. Mix 2 oz. of soot with 1 quart of new milk, and drench the horse; in two hours thereafter, give a pint of linseed or train oil.

8. Rub half a gill of spirits of turpentine on the breast of the horse, with the hand; then give a quart of strong sage tea, sweetened with sugar, molasses or honey; and in two hours thereafter, drench the horse with half pound of glauber salts, dissolved in warm water.

9. Chop up a handful of tobacco leaves and give it to your horse, in his feed.

10. Get one ounce of indigo; powder it fine; give one half, in the morning, to your horse, in soft mash food, and the other at night; next morning, drench him with a pint of linseed oil.

11. Keep the horse from all kinds of food for one day; at night, give him a warm bran mash; directly after he has eaten the mash, give him a ball made of 1 scruple of calomel, 1 do. of turbith mineral, and as much crumbs of bread and honey as will form the mass. Next evening, give him a drench of a pint of linseed oil. Then feed the animal as usual for two or three days; and then give the ball as before mentioned, to be followed by the oil, when the horse may be fed and treated as usual.

Preventives.—Scrape the knits deposited by the fly off the animal, and be careful to give your horse an ounce of slacked lime and salt, mixed together, twice a week, or the same quantity of hickory ashes and salt, mixed together.

CURES FOR FOUNDER.

1. "The seeds of sunflowers," says a correspondent of the Zanesville Gazette, "are one of the best remedies known for the cure of founder in horses. Immediately on discovering that your horse is foundered, mix about a pint of the whole seed with his feed, and it will effect a perfect cure." The seed should be given as soon as it is discovered that the horse is foundered.

2. A strong decoction of sassafras, to be given thrice a day, a quart at a time, is strongly recommended as a safe and certain cure. As auxiliary means, the horse's shoes should be taken off, and the animal turned into the pasture, if in the season of grazing; if not, he should be fed on mashes of bran and straw, with an addition of a pint of linseed meal, for a few days; his feet should be washed in warm water, dried by rubbing with a coarse cloth, and have his hoof and coronet well rubbed with heated lard. Bleeding, either general or local, in severe cases, is eminently serviceable; and it will be well, too, to dissolve 5 drachms of Barbadoes aloes in a pint of water and gin, and give it in a drench.

Mortality among the Horses.—Chas. Willis, Veterinary Surgeon, in a communication to the Spirit of the Times, says that over a dozen horses died in one week in the streets of New York, from what is generally termed sun stroke—and adds: "The fact is, that the inhuman owners or drivers expect their horses to go as far and as fast at this, as at other seasons of the year. The spirit of the noble animal will not permit him to give up until he is exhausted; the heat is no doubt the cause, but how erroneous is the treatment to restore them! The first thing is, to plunge a knife into the palate of the mouth or the partition of the nostrils. Here is a double error: they imagine by that means they deprive the brain of blood which is going to the parts for support; in the nose they only abstract the venous blood of the face. The great error is, they aggravate the disease by "taking away even that which is left."

"The proper and simple means under such circumstances, (and which every coachman and stage-driver ought to be made acquainted with,) would be, to get a little gin or brandy, and add double the quantity of water to it, and give a spoonful every five minutes, until reaction takes place, when the animal will be, in nine cases out of ten, restored and able to walk to his stable in less than an hour. By pursuing the other course, nine cases out of ten die, and for the information of parties that advocate the bleeding, I must tell them, that if ever it should be deemed necessary to deprive the brain of blood, they must tie up the carotid or vertebral arteries; and the only channels conveying blood from the brain are the jugular veins."

Broken Wind.—Broken wind is a disease with which horses are afflicted. The air-cells of the lungs become ruptured, from various causes, and respiration is labored and irregular. "The cure of a broken-winded horse," says Youatt, "no one ever witnessed, yet much may be done by way of palliation. The food of the animal should consist of much nutriment condensed into a small compass; the quantity of oats should be increased and that of hay diminished; the bowels should be gently relaxed by the frequent use of mashes; the water should be given sparingly through the day, although at night the thirst of the animal should be fully satisfied; and exercise should never be taken when the stomach is full. It will scarcely be believed how much relief these simple measures will afford the broken-winded horse, and of how much exertion he may be gradually rendered capable. Carrots are very useful to the broken-winded horse, not only as maintaining much nutriment and considerable moisture, so that less water may be required, but from some property they possess rendering them useful in every chest affection. A broken-winded horse turn-

ed out to grass, will never improve, on account of the almost constant distention of the stomach."

Worms.—It is to be presumed that the horse is troubled with worms when he has frequent attacks of cholic, when he loses his appetite and strength, without any apparent cause. He should take bitter infusions, as wormwood, or tansy, and infusions of Carolina pink. Another excellent vermifuge is soot from a chimny where wood is burnt, given in doses of three or four ounces, mixed with warm milk.

Wens.—Tumors at first soft and indolent, which grow under the skin, and which have a tendency to become hard, and increase in size indefinitely,—the only sure method is to cut them out. This may be safely done, care being taken not to wound a blood vessel, or other important part. — *Selected.*

Hoove in Cattle.—B. M. Ellis, of Muncy, Pa. gives in the Albany Cultivator the following cure for an animal hooved on clover: "Take a straw band with a knot in the middle as large as a man's fist, put plenty of tar upon it, and put it in the mouth of the animal, and tie it on the top of the head; not too tight—so that he can chew it; and then put two or three spoonsful of tar in the mouth. This will relieve the animal almost instantly. I have cured at least twenty cattle in this way and can cure any one in fifteen minutes at most. If the animal is hooved upon corn or rye chop, (corn or rye coarsely ground and mixed with cut straw or hay,) I take a pint of Glauber salts, and drench the bowels with it. I have known several cattle to be cured in this way; I never had but one of my own foundered,—it was a cow fresh in milk. I gave her lard—she soon got better, but lost her milk, and for a week or two gave but little. She lost all her hair, it came off in great bunches."

Swellings.—The following article is recommended for scattering swellings on horses, cows, oxen and other domestic animals. "Take two quarts of proof whiskey, or other proof spirits, and warm them over the fire; but not to boiling—dissolve in it a pint of soft soap—when cool, put it in a pint bottle or other close vessel, and add one ounce of camphor." This forms, when dissolved a liquid opodeldoc, and is then ready for application. It is a cheap and valuable remedy, and should be kept constantly on hand by every person.

Hens.—If you keep your hens confined, do not neglect to provide them liberally with meat.—In their summer rangings, bugs, worms, grasshoppers, and flies constitute their chief food, and when debarred from these, they are required to be otherwise supplied. A very remarkable indication of the want of this species of food is to be seen in the avidity with which they devour fish offal, and indeed any fleshy matter that is presented. When there is a scarcity of meat, as is frequently the case at particular seasons of the year, we have recourse to the scaly treasures of our ponds and streams and find a most excellent substitute.

To Cure Swelling of the Throat in Hogs.—Take of Molasses one half a pint, and a tablespoonful of hog's lard; to this add of brimstone a piece an inch in length. Melt it over the fire, and when cold or in a liquid state, drench the hog with it; and nine times out of ten it will be found to have the desired effect. My hogs were affected with this disease during the past year, and I found the above to be effective when all things had failed.—*Farmer's Register.*

THE HOME DEPARTMENT.

Flowers.—Mothers, cultivate flowers, that your children may emulate your good example, that *home* may be the sweetest spot to them; our first mother was placed in a garden as the most appropriate place for one who was to be the partner of him who was formed after the image of his Maker; that her first lessons might be taught from nature's most beautiful leaves of instruction. If we feel troubled and careworn, for troubles will come, does not a walk among the flowers calm and soothe us by leading our thoughts to more pleasing things, to the manifold kindness of our Heavenly Father in studding the earth with so many jewels?

Hints to Lovers of Flowers.—A most beautiful and easily attained show of evergreens in winter may be had by a very simple plan; which has been found to answer remarkably well on a small scale. If geranium branches are taken from healthy and luxuriant trees, just before the winter sets in, cut as for slips, and immersed in soap and water, they will, after drooping for a few days, shed their leaves, and put forth fresh ones, and continue in the finest vigor all winter. By placing a number of bottles thus filled in flower baskets, with moss to conceal the bottles, a show of evergreen is easily insured for a whole season. They require no fresh water.

Fowls.—A farmer may keep a hundred fowls in his barn, may suffer them to trample upon and destroy his mows of wheat and other grains, and still have fewer eggs than the cottager who keeps a single dozen, who provides secret nests, chalk eggs, pounded brick, plenty of Indian corn, lime, water, and gravel for them; and who takes care that his hens are not disturbed about their nests. Three chalk eggs in a nest are better than a single nest egg, and large eggs please them. I have often smiled to see them fondle around and lay into a nest of goose eggs. Pullets will commence laying earlier in life where nests and eggs are plenty, and where other hens are cackling around them.

RECIPES.

To make Spiced Tomatoes.—Take in the proportion of 2 lbs. of tomatoes to 1 lb. of brown sugar and half pint of good cider vinegar, and 6 cloves, put them into a preserving kettle and stew them over a slow fire; after they have been in sufficiently long to cook them tolerably well, take the tomatoes up and place them upon a dish, to cool, but continue the boiling of the syrup, slowly, in the mean time. When the tomatoes become cool, put them into the syrup, and boil them until they are done through and become dark red in color; then take them out again, and put them on a dish, to cool; after which, continue the boiling of the syrup until it becomes of the thickness of molasses. Then put your tomatoes and syrup, when cooled, into jars; cover over the mouths with paper, tightly tied around; make holes with a pin through the paper, and place the jars in a sunny window, for a few weeks; the jars must then have paper tied over their mouths, so as to exclude the air, when they will be fit to put away.

If the tomatoes should be large, it will be best to cut them in half before putting them in the kettle. This preparation of the tomatoes is excellent for pies, preferable, in the opinion of many, to preserved gooseberries.

To make Tomato Preserves.—Wash your tomatoes, then pare them; and for every pound of tomatoes, take ¾ a pound of refined loaf sugar; dissolve the sugar in a sufficient quantity of water to turn it into syrup, in a preserving kettle over a slow fire; when your sugar is dissolved, put your tomatoes and the third of a lemon, sliced, into the syrup, and boil, slowly, until the tomatoes are cooked; then take the tomatoes carefully out of the syrup, and cool them on a dish; continue to boil the syrup, slowly, until the tomatoes are cooled; then strain your syrup through a hair seive, and put the syrup and tomatoes back into the kettle, and boil them, very slowly, for half an hour; then, if the syrup is boiled to the consistence of molasses, your preserves may be put into jars as soon as cooled.

To make Tomato Catsup.—For 2 bottles of catsup, take a peck of tomatoes, wash and slice them up, put them into your kettle and simmer them until they get into a boil; then strain or press them through a hair seive, by pressing them with a wooden ladle or the hand, so as to rub the pulp or meat of the tomatoes through, leaving nothing but the skin and seeds behind; then put the juice, thus passed through the seive, again into your kettle; then take ½ a tea spoonful of cloves, ½ tea spoonful of cinnamon, and ½ tea spoonful of black pepper, and pulverize the whole in a mortar; tie the spices in a thin muslin bag, and put it in the kettle; add ½ a spoonful of salt, and boil slowly until there is but two bottles of the catsup in quantity left; then take it cool and bottle it; place corks *loosely* in the bottles, and let it remain two or three days, when you must put a tea spoonful of brandy in each bottle, taking care not to let the bottle be fuller than up to the mouth of the neck; cork tight, seal, and set the catsup away.

HORTICULTURAL.

WORK IN THE GARDEN.

Whatever we may advise to be done this month, we desire to be understood as meaning that it shall be done as early in the month as possible, unless otherwise direct, as the delay of even a few days, at this advanced period of the season, might prevent the object had in view, by denying the necessary time to perfect the plant intended to be grown.

Sowing Cabbage Seed, for early cabbages next year.—If you desire to provide your family with early cabbages next summer, prepare a bed on a warm border, by manuring well, dig it up in thin slices, and rake it fine; then sow several of the varieties of early cabbages, so selected, as to the time of ripening, as that one kind will succeed the other, and thus a continuous supply be secured throughout the season. The *early York*, the *large York*, *early Imperail*, *early Vanak*, *early Sugar Loaf*, and the *Dutch*, would give a variety that would meet the object in view. Sow the seed thinly and evenly; rake them in gently, and press the earth down with the back of your spade. Water the bed of an evening. When your plants first come up, dust over them a mixture of three parts *soot* and 1 part *flour of sulphur*, taking care to water them just before you apply the mixture. Two or three dustings will not only secure them against the fly, but encourage their growth. As a security against the fly, it would be best to soak the seed in fish oil, for about twelve hours; then drain off the oil, and mix ashes with the seed, so as to render them easy of distribution. In addition to the waterings above recommended, you should, at least, water them every other evening, about sun down, until they are fit to set out, which will be in about five weeks from the time they may come up. When fit for transplantation, we will tell you how to manage them.

Sowing Cauliflower Seed.—Prepare a bed, as for cabbage plants, and sow cauliflower seed about the 20th of the month. Treat the plants as above directed for cabbage plants. In about a month, your plants will be fit to be removed into the frames.

Spinach.—Thin out your advancing plants; then prepare a bed, in some dry spot, and sow seed, to secure a winter and spring supply.

Lettuce.—If you have plants of sufficient size, set them out to loaf. About the 20th of the month, sow lettuce seed. When the plants of this sowing are about three inches high, thin them out so as to stand about three inches apart. Should the weather be dry, water them.

Celery.—Earth up your celery.

Small Salading, of all kinds.—The seed of all this description of vegetables may now be sown, on warm borders, for use late in the fall.

Radishes.—Sow the seeds of the white and black Spanish radish seed, as also the early short top, and white and red rooted Salmon.

Herbs, Medicinal and Culinary, may now be set out; but care must be taken to water them at least three times a week.

Strawberry Beds.—The *old* beds should be cleaned out and a little manure worked in. New beds may now be set out.

Turnips.—Thin out your early turnips so as to stand 6 or 8 inches asunder.

Cauliflowers—Broccoli.—Your plants of these, now growing, should be watered whenever the weather is dry, to force them into flower in October.

Tomatoes.—Be sure to *pickle* and *preserve* full supplies of this delicious and healthful fruit. As a preserve, they stand No. 1 in our estimation. This recommendation does not come strictly within the business of gardening; but, as attention to one's family is the business of every one, and by none more appreciated than by the hostess of the homestead, we have deemed it our duty to give this hint.

Gooseberries, Currants and Raspberries should be transplanted early this month, and care must be taken not to let them suffer for water.

FLORICULTURE.

MEMORANDUM FOR SEPTEMBER.

Dahlias.—These should be tied up to stakes, to preserve them from the effects of storms. Trim away suckers and and small shoots.

Greenhouse Plants should receive due attention, such as tying up, pruning all such as require it, and repotting, if not already attended to.

Camellias should be well watered at the roots, and frequently syringed.

Oxalises, if not already attended, should now be repotted.

Roses, of all kinds, should have their layering finished; budding may now be commenced. Roses in pots, wanted for blooming about Christmas, should now be shifted into larger pots and headed in; water occasionally, say every ten days or two weeks, with liquid guano. Cuttings of all kinds of Bengal, Tea, Noisette, Bourbon, and Hy. Perpetual roses, may now be renewed from cuttings.

Geraniums should be changed to larger pots, and old plants should have their shoots layered off.

Carnations, the layers of which have not taken root, should be potted in good prepared soil, which will induce the layers ro root strongly, and a better bloom is secured for next year.

CHAPPELL'S FERTILIZER.

To the Editor of the American Farmer.

West River, August 22d, 1848.

Last spring, I purchased from Chappell & Co. seven barrels of their "Fertilizer," and had it applied with the utmost care, at the rate of 300 lbs per acre—the ground was carefully and frequently observed by intelligent farmers, who were anxious to observe the effect upon the oats. But we all looked in vain—it was utterly impossible to tell by any difference in the growth, where the application commenced or where it ended.

I sold a portion of my purchase to a gentleman in my neighborhood, who has not been able to perceive the least benefit resulting from its use. I have no doubt that the article which was manufactured *some time ago* was *good*—I have no doubt that what is made *now*, may be *good*—but I am very sure that my purchase, was utterly *useless* as a fertilizer. You are at liberty to publish this if you think proper.

Respectfully yours, J. B. OWENS.

"COLLINGTON," in answer to "*Fair Play*," on the value of Chappell's Salts, by some unaccountable accident, was mislaid, and not found until too late for this number. It will appear next month.

METEOROLOGICAL TABLE,

From the 21st of July to the 21st of August.

Kept at Schellman Hall, near Sykesville, Carroll County, Md.

Taken at 6 o'clock, a. m., 2 o'clock, noon, and at 6 o'clock.

	Wind.			Temperature			Remarks.
21	w	sw	w	74	84	73	Clear, shower, gust ½ in., hail
22	w	w	w	69	79	77	Clear
23	w	e	w	63	84	74	Clear
24	w	s	s	67	80	75	Clear
25	s	se	se	68	76	76	Cloudy Clear
26	sw	s	w	74	84	74	Cloudy Clear, Gust Clear
27	w	w	w	71	83	76	Clear Showery
28	ne	w	w	67	63	66	Cloudy Rain ¼ in. Cloudy
29	w	s	sw	62	80	76	Clear
30	w	sw	w	70	86	83	Clear
31	w	w	sw	76	78	73	Clear, Cloudy
1	sw	se	w	65	77	73	Clear
2	w	sw	sw	58	79	75	Clear
3	w	s	s	64	80	73	Clear
4	w	w	w	64	82	78	Clear
5	w	sw	sw	67	84	78	Clear
6	sw	sw	w	73	81	80	Cloudy Rain 1-10th in, Clear
7	w	w	w	64	86	79	Clear
8	w	s	s	67	86	81	Clear
9	s	w	w	71	83	79	Cloudy Rain ½ inch
10	w	w	w	68	75	73	Clear
11	w	w	w	63	75	73	Clear
12	w	nw	w	65	78	74	Clear
13	w	w	w	60	80	74	Clear
14	w	nw	w	66	70	69	Clear rain ¼ in clear
15	w	w	w	63	74	69	Clear
16	w	w	w	58	77	74	Clear
17	w	w	w	60	81	77	Clear Cloudy
18	sw	e	e	70	69	71	Cloudy rain 1 1-8 inch
19	ne	e	e	66	78	76	Clear
20	e	e	e	61	79	76	Clear

REVIEW OF THE TOBACCO & GRAIN MARKETS.

Reported for the American Farmer, by J. W. & E. Reynolds.

Since our last report, we are gratified to be able to state that there has been some slight improvement in common Maryland Tobacco, and an advance of 50 to 75 cents per hundred in prices for the midling, good and fine qualities, caused by an armistice recently entered into between Denmark and Schleswig Holstein, by which the trade of Germany is permitted to be carried on without interruption.

The *Grain* market, throughout the month, until the arrival of the news of the "Canada," last week, was as it had been during the month of July, prices being uniform, at the following rates, viz: wheat, $1.05 to 1.08; white do., 1.08 to 1.12; flour do., 1.15. White corn, 58 to 62 cts.; do., 60 to 63. Since the receipt of the news by "Canada," prices for wheat and corn have declined the former 4 to 5 cents, and the latter 5 to 6 —the news representing the crops in England being unusually large and fine.

We quote sales of common tobacco, $2; midling, $3½ to $4¾; good, $5 to $7; and fine $9. Oats, 26 to 30 cts. Rye, 55 to 57 cts.

Guano.—The following are the importers' of Peruvian guano: 10 to 20 tons, $50 per ton, 20 to 50 tons, $50 per ton, of 2240 lbs., 3 per discount; 50 tons and upwards, $47 per ton, per cent. discount. Sales by gross inspection marked on bags; no allowonce for tare; no for bags. Mr. J. I. Fisher, the Peruvian Consul this port, and the agent for that government for sale of guano, has just disposed of the cargoes Xylon and Ducalion, of which the following analysis:

"Phosphate of Salts,	48.6
Ammonia Salts,	33.4
Silica (or sand),	8.9
Water,	9.8

—JAS. O. M'CORMICK, State Inspec. of Guano.

A part of this lot, which is represented as the best ever imported into this market, is said to learn, in the hands of dealers. The demand guano has been very great this season, and extensive orders have been received from Virginia, as well for our own State. One gentleman, of Montgomery Co., has purchased 200 tons. Numerous lots tons and upwards each have been sent to Virginia besides vast quantities in smaller parcels. It likely that the prices will be lower this fall; but the return of the California vessels, a considerable reduction will be likely to take place, as many them will take guano as a return cargo.

The importers sell in quantities of 10 tons upwards. In second hands, the following prices asked: For small lots, Peruvian, $43a45 per 2,000 lbs.; Patagonia, $28a30.

Bone Dust.—Crushed, 1 cent per lb., or 50 cents per bushel. *Lime*, deliverable at the on any navigable stream in this State, or not than Richmond, 8½a9 cents per bushel, for Baltimore county lime. *Plaster*, ground, per ton, $1.12 barrel.; per ton in the lump, $2.25. *Chappell's* and *Kettlewell's Renovator*, each $3 per barrel lbs., or $20 per ton. *Nitrate Soda*, 3½ cts. per No. 1 Potash, 6¼a7 cts.; Sulp. Ammonia, cts.; Carb. Ammonia, 18 cts.

Fish, herrings, $4 50a4.75 per bbl.; mack $4.12a4.50 for No. 3, new; $6.50a7.50 for *Feathers*, 31a33. *Cloverseed*, $4.25; prime bring more. *Timothy Seed*, —— per bushel. 7¼a7⅞ cts., 6 mos. *Bacon*, sides, 6¼a6¾ c.; shoulders 5¾a6 c.; hams, 8¾a9. *Beef*, No. 1, $12. prime, $9¾a$10; mess, $11½. *Sugar*, N. O., P. R., 5a6. *Salt*, Liv. ground alum, in sacks, per sack. *Whiskey* is advancing, sales at 27 cts. hhds., and 27a28 cts. bbls. *Wool*, fleece, 34 cts.

CATTLE—The offerings at the scales on Monday reached 600 head, of which 400 were sold to butchers, and 200 were driven to Philadelphia. Prices ranged from $2 00 to $3.25, on the hoof, to $4 a $6.25 net, and averaging $2.87½ gross.

HOGS.—We quote at $5.

PLOUGHS! PLOUGHS!!

The subscriber is manufacturing Ploughs of various patterns and of different sizes; also Wheat Fans, Cylindrical Straw Cutters, Corn and Tobacco Cultivators, CORN SHELLERS, &c. Also, THRESHING MACHINES and HORSE POWERS—these are used by the following gentlemen, to whom reference is made, as to their superior value, viz: Messrs. T. Beard, The Rev. Dr. Watkins, J. T. Hodges, T. Welsh, W. Mackall, J. Hart. A. Sellman, R. Sellman, W. Hopkins, J. Kent, Geo. Hess, Geo. Gale, Dr. Fenwick, A. Franklin, J. C. Weems, Anne Arundel county; G. W. Weems, J. T. Barber, R. B. Ray, W. Boswell, Y. Howes, of Calvert co., Md. Agent of Wm. Davis, Baltimore co. for sale of the woodcock Plow. Pennsylvania Grain Cradles. CHAS. H. DRURY.

Gillingham Alley, entrance from Howard-st., near Pratt, and store, Hollingsworth-st. corner Pratt.

Agricultural Machinery.

THE subscribers are now having put up, as fast as the extent of their shops will admit, *Threshing Machines*, to Thresh, Clean and Screen the Wheat complete at one operation; such as we received the First Premium for, at the Exhibition at Baltimore, last November. They will get from 29 to 35 bushels per hour. Also, TREAD POWERS, for one, two or three horses, of the most approved kind, LEVER POWERS, of different sizes, all of improved construction. We will state some of the improvements, to show wherein they consist not in declaration, but in fact. First, we have got up patterns specially to embrace the improvement so highly and strongly recommended by a Committee at the Agricultural Exhibition at Baltimore, last November, which improvement consists in giving a motion by the Power, so that the pulley on the threshing cylinder can be greatly increased, so as to secure regularity in the motion of the cylinder by not allowing the strap to slip, as it certainly will not do over a small pulley. Ours will require the pulley to be double the size of those now in use. Another improvement in our Power is, that the pitch of the cogs, in all of the wheels, are much closer than common, having also increased width, to secure strength. Opinions of experience will universally agree that this fine mode of gearing will give greater ease of draft, as well as smoother motion. ☞When ordered, we make Threshers with or without shakers. PRICES AT SHOP:

Tread Power, 1 horse, $85; 2 horse, $100; 3 horse, $110.

Lever Power, large size, $75; small size, $65.

Improved Premium Thresher and Cleaner, $100.

Common Threshers, according to size, from $35 to $50.

☞We will deliver them in Baltimore, or an equal distance, without additional charge.

☞Our work of every description we guarantee to work well, and ask only a trial to secure the approbation and patronage of the public.

ATLEE & BLYTHE,

New Windsor, Carroll county, Md., May 4, 1849.

N. B.—The subscriber, one of the firm, being a practical expert, assures the public that these machines are, upon trial, far above what their advertisement represents.

JAS. C. ATLEE.

CHEMICAL MANURE,

Manufactured by the "George Bommer New York Manure Company."

THIS Manure is made chiefly of Fecal matter from the sinks, in which is mixed a small portion of substances that are of themselves powerful agents of vegetation, and possess the virtue to fix and retain the ammoniacal gas of the matter.

The great desideratum of the agriculturist has always been, to find out some process by which excrements might be solidified quickly, and all their fertilizing properties so strongly retained, that the manure may dissolve slowly in proportion to the requirements of the plants, and therefore, produce its effects for a time equal to that of farm manure.—This process was at length discovered by the French Chemists, and is now practically carried out with complete success in more than sixty of the large cities in France, where such factories are in full operation.

The "G. B. N. Y. M. Co." has established a factory, on an extensive scale, near the city of New York, in which they manufacture this kind of manure, and as the fecal matter can be obtained in this country at less expense than in France, the manure will not only be made stronger, but will be sold at a price less than in the French cities, this price being so established as to afford only the reasonable remuneration to which we are honestly entitled, the more so, as its manufacture is not of the most agreeable kind, and withal troublesome and laborious.

The manufacturing department is under the special charge of George Bommer; esq., who has a perfect scientific and practical knowledge of manure matters generally, and the company has established a standard for the strength of its manure from which it is intended not to deviate, so that its customers may at all times be furnished with an article really worth what they pay for it. Our manure is an inodorous grain, and as the substances from which it is made contain of themselves all the elements necessary to the fertilization of the soil and growth of plants, it is extremely well adapted to such purposes.

To manure an acre highly, it requires 12 to 15 barrels or 36 to 45 bushels spread broadcast. Applied in hills, one half of this quantity will suffice. Its application is simple and easy, and printed instructions for its use will accompany every parcel sent to order.

We desire it to be remembered, that our manure has no similarity to another, known under the name of "Poudrette," although the principal componen of ours (the Fecal matter) is the same as that which is used in poudrette in a much less proportion; our auxiliary substances, as well as our manufacturing process, are altogether of a different nature and kind.

It belongs not to us to eulogize further the quality of our manure, what we desire at present is, to call upon the members of the agricultural community to try it! and we have reasons to assure them, that they will find it the most profitable manure they ever used.

Price, taken at the Factory:

37½ cents per bushel, without package; 50 cents per bushel, packed in barrels; or, $1.50 per barrel, package included.

Orders addressed to the above company at this office, 72 Greenwich-st., New York, will be promptly attended to.

By order of the Board of Directors,

GEORGE BOMMER, Director.

New York, January, 1849.

☞The Factory will be in full operation early in the spring, and manure can be had in April next, and at any time afterwards. Feb. 1–tf.

BONE DUST.

THE subscribers manufacture BONE DUST, as fine as any made in the country, by grinding, and without any chemical operation—their bones are fresh from city slaughtered cattle, and all the valuable properties are contained in them. They sell at the lowest market price. Orders will be received at our factory, Columbia-street, intersection of the Washington road, or at the store of Geo. C. Collins & Denson, 83 Light-street Wharf.

GEO. C. COLLINS & BULLOCK.

N. B.—Always on hand, Glue, Curled Hair and Glue Manure. jun 1–4t*.

Guano! Guano! Guano!

PERUVIAN GUANO, Amaises cargo, in cotton bags—Patagonian Guano, African do. Chilian do., for sale in lots to suit purchasers, by T. W. & L. LEVERING,

No. 114 Pratt-st. Wharf.

Also Clover Seed, Timothy Seed, Orchard Grass, Herds' Grass, &c.

FARM SCHOOL.

THE *Mount Airy Agricultural Institute* will commence its Winter Session on the first Thursday of October next.

The course of instruction pursued, is such as to insure to the student a thorough knowledge of the *Natural Sciences*, collateral with a full practical course on the farm, in all the labor of which the students participate.

For further particulars address the Principal.

JOHN WILKINSON.

Germantown, Pa., August 15th, 1849. sep 1-2t

Thirty Head of Devon Cattle at Public Sale.

THE subscriber having determined to change his system of farming, will offer at Public Sale, in Rockville, on FRIDAY, the 14*th day of September next*, being the second day of the Montgomery County Agricultural Society, his entire

STOCK OF DEVONS, numbering in all THIRTY HEAD,

most of which are young cattle. This stock is pure and unmixed, and cannot be excelled for beauty and symmetry of proportions by any ever imported into this country. Among the lot, there are some as fine milkers as can be found within the State of Maryland. Persons desirous of improving their breed of cattle, and procuring the pure Devon Stock, will here have an opportunity, which rarely occurs; of doing so.

As I am disposed to give all an opportunity of examining the stock before sold, the public are assured that I will not dispose of a single head before the day on which they are advertised at public sale, when they will be sold to the highest bidder, on a credit of twelve months, the purchaser to give note with approved security, bearing interest from the day of sale. STEPHEN BAILY.

P. *S.* A liberal deduction will be made for cash. sep1 1t

Rushbrook Farm for Sale.

SITUATED Three Miles north-east of Towsontown, Baltimore county, within 10 miles of this city, containing 450 acres, more or less; from 175 to 200 acres in cultivation. It is estimated that there are from 4 to 500 cords of wood, consisting to a very great extent in chestnut rail timber—all the fields in cultivation have been heavily limed, the most of them at 100 bushels per acre. The above farm is newly and thoroughly fenced. The other improvements are, three new and excellent good sized log houses, and one extra size; also one extensive manager's house, having some 8 or 10 rooms; barn (called the three decker) 65 by 45 feet, just new, and having cost $1500, and built in the best manner; corn, hen and other houses; smith shop, and kiln capable of burning 1500 bushels. This farm is undulating; land very kind and susceptible of very high improvement. There is a fine young peach orchard. City property, or stocks will be taken in exchange at a fair valuation. For terms and other particulars, apply to

SAMUEL SANDS,
sep 1 Office American Farmer.

THE "CARPENTER'S POINT FISHING SHORES" ARE OFFERED FOR RENT FOR THE SEASON OF 1850.—These shores lie along the waters of the Chesapeake Bay and of the Northeast river, and to the advantages of situation add those of a complete set of Buildings and Sheds, and a long established custom of purchasers of fresh fish. Proposals will be received by S. Sands, Esq., Editor of the American Farmer, or by the subscriber.

J. HOWARD McHENRY.

☞The entire Carpenter's Point Property is offered for sale on very moderate terms. Apply as above. sep 1.

SEED WHEAT
"RUFFIN'S IMPROVED PURPLE STRAW."

THE subscribers are in the receipt of a small lot of this justly celebrated WHEAT, direct from the estate of *Edmund Ruffin*, esq., of *Hanover County, Virginia*, and put up expressly for SEED.

We would particularly call the attention of Maryland farmers to this Wheat. Its high reputation in Virginia as a safe and productive crop, together with the well known character and standing of the grower as an agriculturist, specially commends it to their notice. Apply to

JAMES McCONKEY & CO.,
sep 1-1t* 87 and 89 Bowly's Wharf, Baltimore.

BONE DUST.—The subscriber respectfully informs the farmers of this and the neighboring States, that he is prepared to furnish BONE DUST on as favorable terms, and of unsurpassed quality, as it can be had in this vicinity. Those wishing to try it may depend on obtaining a good article, on application at his factory near the first toll gate on the Reisterstown road, Pennsylvania avenue extended.

sep 1-1t* LEWIS TURNER.

BOOK & JOB PRINTING NEATLY EXECUTED.

"CHAPPELL'S FERTILIZER."

The experiments which have been made on s[oils] and *clover* have been so numerous and success[ful] that no doubt can now remain as to the adv[antages] to be derived from its use. The *increased yield* [of] of *grain* and *clover*, has secured large orders [from] those who used it last fall.

The question now to be decided by some farm[ers] is, whether it is preferable to use the "Fertiliz[er]" or "Guano?" One fact we feel safe in stating, [as] experience has fully confirmed us in this opin[ion] that an *equal amount of money* expended on an [acre] of *poor land*, our fertilizer will give fully as large yield of grain, of equal, if not superior qua[lity] while the *increased yield of clover*, over what will be obtained from the use of guano, will more than pay for the outlay, if two barrels are used to the acre. This peculiarity of our salts has ex[cited] several farmers to increase their orders this fall, and those who will "*try it*" will find this statement to be correct.

It being "*nourishment to the plant*," and not a "*stimulant*," we consider it *more lasting in its effects*, [and] pendent of the increased yield of clover. If this is correct, of course its permanency in this way also secure to it a preference over guano.

We refer to certificates published in the May and July No. of the American Farmer.

The season has been very unfavorable for a fair test of our Agricultural Salts. The drought throughout a *vast region* has been unprecedented, and all *spring crops* have consequently failed. To such as have suffered from this cause, where the Fertilizer has been used, we would say, *the Salts are yet in the soil*, and, though but small or no apparent advantage may have been derived from its use on the present crop, its effect *will yet be fully manifested* in your after crops. "It is like a deposit in bank; if not checked out, it remains safe for your after drafts." On this we are willing to risk the reputation of our article. Let such, therefore, (when a sufficient quantity of Fertilizer has been applied) put in their next crop without additional manure, and we feel certain the result will prove the above statement to be true.

In such sections of our State, as have received a due share of rain, the Fertilizer has, as ever before *fully sustained its reputation*, and crops of Oats, *Corn, Potatoes*, &c., have been large and satisfactory.

One thing is certain, our orders, so far this fall, from those who used it *last year on Wheat and Clover*, and *this spring*, on Oats, Corn, &c., bears very strong *testimony* in favor of the article, as they *all order increased quantities;* this is a source of great encouragement, as our desire is, that every one who purchases it, shall be fully remunerated.

☞Pamphlets "On the Origin, Use and Action of "Chappell's Fertilizer," with directions for its use," can be obtained at our office, up stairs, corner of Hanover and Lombard streets, Baltimore.

P. S. CHAPPELL, } PATENTEE
WM. H. CHAPPELL, }

☞CAUTION.—Be particular to order "Chappell's Fertilizer," the name is stenciled on every barrel, *none other is genuine*. sep 1.

CULTIVATORS.

WHITMAN'S CULTIVATORS took the first premium at the State, and also at the County Fairs, and are sold as follows, viz: $4.50, $5, $5.50 and $6.50.

E. WHITMAN, Jr.,
Agricultural Warehouse and Seed Store,
my1 Cor. of Light and Pratt st., Baltimore.

KETTLEWELL & DAVISON'S RENOVATOR.

In asking the attention of the Agriculturists of Maryland, and elsewhere, to the enterprise in which we have embarked, we congratulate ourselves upon the universal and active interest which prevails, throughout the State, upon the grave and important question of the best and cheapest means to continue the improvement of good, and the renovation of old and worn-out, lands. This energetic course had become absolutely necessary to the Atlantic farmer, as a matter of self defence. The new and rich lands of the West, with a virgin soil, yielding immense crops, and aided by the wonderful progress of internal improvement, makes the farmer of Michigan and Wisconsin the formidable rival of his competitor of Maryland and Pennsylvania. Thus pressed, it was not enough for the latter to remain stationary; the time had arrived when the "tiller of the soil" was required to act with that intelligence and promptitude which belongs to him as a class. The history of the agricultural improvement of Maryland, for the past few years, shows with what spirit and success—triumphant and conclusive—this reformation has been carried on. No branch of industry—and that the foundation of our National prosperity—has accomplished more already, or promises more useful results for the future, than those, in this State, who are engaged in the agricultural pursuits of life.

Such enterprise could not develope itself without calling into requisition every element directed to the same end. Science, capital, corresponding enterprise, a fair field open to all, was presented to every man who felt disposed to make the experiment. With such views, and not ignorant of either the suspicions or the prejudices we would have to encounter, we have invested our capital and character, in good faith and full confidence, with a stern determination to maintain the latter, if we risk the former, in the establishment of an extensive Agricultural *Depot* for the sale of simple and compound Chemical Manures. One of our firm having a considerable personal interest invested in co-partnership with another party, in the practical details of farming, and the other, the chemist of one of the largest chemical factories in the city, we have entered upon our undertaking as a labor of love, hoping, however, and believing, that it will result to the mutual advantage of ourselves and the public. We present our Renovator in the most plain and practical way in which we can place its merits before the public.

All soils contain naturally certain constituents which are removed by grass and grain crops, and appear in the bodies of animals fed on these crops, in the form of phosphate of lime, potash, soda, azotized matter, ammonia, &c. There are certain proportions in which these substances are removed by ordinary cropping.

The soil may contain a supply of all the materials referred to; but frequent cropping may have used up all those in a free state. Now, under these circumstances, we may renovate the land by supplying all those materials which are required for the crop, without drawing on the soil, but actually *resting it* and *keeping it covered*, while undergoing the process of disintegration; all of which, *experience* says is important.

A rotation of crops is not the *best* mode of accomplishing this object; for although all crops do not remove from the soil the same proportion of its elements, yet they are removed, and the land is impoverished. On the other hand, we are taught by experience that land exposed to the sun's rays is not improved by rest as when "covered." Guano will, in many cases, supply the deficiency of two of the elements necessary for the growth of a crop; but it is found frequently to fail, because *those two* elements are not wanted by this particular soil; and the experiment is a hazardous one, for the failure is not only a loss of time and labor, but the manure is an expensive one, and the crop is twice lost. Stable manure, plentifully applied, will generally accomplish the object; but it is not always to be had in sufficient quantity; and many soils are injured by the admixture of so much vegetable matter, while the *salts* contained by the stable manure would have been beneficial *alone*. But, under the most favorable circumstances, we are prepared to prove that it is cheaper to apply one cart load of Salts, containing the extract of one thousand cart loads of stable manure, than haul out the latter, although it cost nothing. We call the attention of the public to the fact that we do not merely stimulate the growth of *one* crop by the application of an agent like guano or plaster; neither do we profess to have discovered some new combination or panacea for curing all the defects of drainage and bad cultivation; but we challenge the severest scrutiny to detect the absence or deficiency of any Salts that is required for the usual crops, in the proportions indicated by the best authority; in other words, we propose to put on the land exactly what will be taken off by the next crop. Take, for instance, one of the elements of our Renovator, phosphate of lime: eight pounds are removed from the soil in every ton of hay, wheat or straw, and one pound by every one thousand pounds of wheat or oats. Twenty pounds will supply an acre with this material for three crops of wheat, clover, &c. &c.; and one barrel of our Renovator will, consequently, provide more of this material than any six crops can remove from one acre. Moreover, we will engage to forfeit 200 barrels of our Renovator to any individual who will produce a barrel of our Renovator that contains less than the average in a hundred pounds of guano of phosphate of lime.

A bushel of green dung weighs 87½ pounds, of this 83½ per cent is Water, and only 2½ is soluble. One hundred pounds of dung contains *nearly* ½ of a pound of Phosphate of Lime, so that one barrel of our Renovator is equal to about two hundred and fifty Bushels of pure dung with reference to Phosphates *alone*.

But if we compare the fixed soluble Salts, one barrel of our Renovator, represents more than four hundred bushels of dung; for one hundred pounds of dung do not contain ½ a pound of Salts. If it were possible to burn up the cartload of dung and collect the 8 lbs. of ashes, without losing the ammonia that would be volatilized, it is manifest that much labor would be saved in its application.

Now this we propose to accomplish in the use of the Renovator. All experience shows that the slow combustion or rotting of the dung when spread upon the field does not supply even this proportion of salts,

for the straw or hay of the dung is frequently preserved for years without decomposition retaining the phosphates, &c., while the ammonia is evaporated and lost to the crop; whereas the ammonia of the Renovator is applied as a sulphate or fixed salts of ammonia more than 24 lbs. to the barrel. Apart from all this, the seeds of noxious weeds are spread broadcast upon the growing crops with every bushel of dung. It is estimated by the analysis of the ashes of the soap boiler that every barrel of our Renovator contains as much Potash as six bushels of their ashes; and the salts of lime in each barrel contain more pure lime than a bushsl of the best quick lime from the Schuylkill. The Salts of Magnesia and Soda in each barrel will amount to 50 lbs., and the Sulphate will exceed seventy-five pounds in each barrel. Moreover we pledge ourselves always to supply the proportion as above in every barrel, and will make the forfeit referred to above to any one who can produce a barrel deficient in any of the articles as represented above.

We have before stated that our object is not to prescribe for all possible cases the same remedy; and if an apparent failure should occur in the use of our Renovator, we pledge ourselves to have the soil analysed and remedy the deffect; and, having the control of large quantities of Salts of Potash, Ammonia &c., not only in this city, but elsewhere, that were formerly thrown away, we will, if the agricultural community will avail themselves of the general results of analyses of soils in any particular district, and note the element generally deficient, we will add it in larger proportions to our Renovator or supply it separately. These articles being much cheaper as manures than as they appear in commerce purified for internal use?

As before stated, we make no pretensions to originality, nor is there any mystery in our compound. We have the good fortune to command the materials, and the knowledge how to prepare them. We say that we have 24 lbs. of the Salts of Ammonia in every barrel of our Renovator; and we cordially invite all interested in the agricultural prosperity of the State to call at our Factory, on Hamburg street, and witness the process of distillation by which we command it. So with everything else; the whole process is open to any examination which the farmer may desire to make. A statement appeared, sometime since, showing the enormous cost; and hence the impossibility of our manure containing the ingredients it does, and be sold at the price we ask.—There was more truth in this, than might be supposed. It came within one hundred per cent. of that high standard, for if the farmer was to purchase the article separately and make the compound himself, he could not do so, at a cost less than between four and five dollars per barrel. This is truth.

And with this plain statement of our fertilizer we ask the patronage of the public, with full confidence that time and experiment will confirm, as it has done heretofore, all, and more than we have said in its favor.

We also call the attention of Tobacco Growers, to our GENERATOR, made for the express growth of this plant. We will in due season present certificates of the value of this chemical compound to tobacco planters.

Also to our *Ground Oyster Shells*, pulverised as fine as plaster, without the shell being burnt. By a careful analysis of 100 grains of pulverized oyster shell, it has been shown by Professor Rogers that they contain

Carbonate of Lime,	95.18
Phosphate of Lime,	1.88
Silica,	.40
Water,	1.62
Insoluble Animal Matter,	.45
Loss, &c.	.47
	100.00

We shall also keep constantly on hand unadulterated ground plaster, ground by ourselves and warranted pure.

We have selected from various testimonials, which we could greatly multiply, the following evidences of the value of our Renovating Salts.

DIRECTIONS

FOR THE PROPER MODE OF APPLYING KETTLEWELL & DAVISON'S AGRICULTURAL RENOVATOR.

Every farmer knows the importance of having land in perfect order; without this, injustice is done to all parties, but to none so much as the farmer himself. With the land in order, the application is cheaply and easily done. After being taken from the barrel, should the Salts adhere in lumps, it should then be pulverized as fine as practicable, and sown broad-cast like plaster, at the rate of from 300 to 600 lbs. per acre according to the condition and quality of the land, *then harrowed in*, either before or after the seed is sown. The ammonia being liberated, or a sulphate, sinks into the earth, and gives a continued improvement to the soil. Guano on the contrary, it is well known should be ploughed in; the ammonia being volatile ascends. As a top dressing upon both grain and grass, we have evidence of success that would almost appear incredible—the same remark will apply to where it has been used on Corn in the hill.

TERMS—For the Agricultural Renovator, $60 per ton, or $3 per bbl. of 300 lbs.

For the Ground Oyster Shells, $8 per ton.

Plaister, usual price.

☞Terms Cash on delivery.

KETTLEWELL & DAVISON,

Office at Messrs. Ober & McConkey's, cor. of Lombard and Hanover streets. Factory, Federal Hill, Hamburg street.

LAUREL FACTORY, July 29, 1845.

Mr. John Kettlewell—Dear Sir: In reply to your communication, asking for my experience in the use of your Fertilizer, I have but time to say, that I have used it on grass, as a top dressing, and on corn, as an experiment, this spring, at the rate of 2 to 3 barrels per acre, in both cases with as much effect apparently, as where I used stable manure or ashes.

I am satisfied, so far, with the effects produced by it, and shall continue to apply it wherever I fall short of my other manures.

Yours, very respectfully,
H. CAPRON.

SILVER SPRING, July 22, 1845.

My Dear Sir: I measured 3 acres of ground to make an experiment of the relative value of your renovating Salts, ashes and plaster, and Peruvian guano, I put five dollars worth of each on each giving a separate acre a broadcasting application

your manure—another acre the ashes—the third acre the guano. The soil of each acre is as near alike as can be. As yet, it is impossible to say which has the race. The guano run ahead at first, but now, I think, it is neck and neck with the salts; the ashes and plaster, at the beginning rather behind both, is running up. It is impossible to say which wins until I shuck out the corn. I would bet on the Salts.

Your friend,

F. P. BLAIR.

Dear Sir: I have no hesitation, on the contrary take great pleasure in affording you the result of my experiment of your Agricultural Renovating Salts for the improvement of land. My experience is unquestionably and decidedly favorable. I applied it upon five acres of poor land, (which I planted in corn,) both broad cast and in the hill, along side of land which had been both limed and manured; and where your Renovator was used, I find the corn in every respect to be as good and flourishing, as it is upon better land that had been heavily manured upon a clover sod. I look upon your enterprise as highly important to the farming interests of the State, in thus affording them so cheap and valuable a manure, and can give no stronger evidence of my confidence in it, than by ordering five times the quantity I purchased of you last spring.

Very respectfully,
Your friend and ob't serv't,
JOHN L. STANSBURY.

Balt. August 16th, 1849.

From a member of the Baltimore Bar.

BALTIMORE, July 18, 1849.

Dear Sir: In redemption of my promise to you made in the spring, when I purchased a ton of your "Renovator," it gives me pleasure to state that my expectations from its use have thus far been fully realized. As directed, I applied on each hill of the corn immediately after the same had been planted, a small handful, and upon one or two parts of the field where the soil had been almost entirely washed off, the "Renovator" at the rate of a barrel per acre, was sown broadcast and harrowed in before planting the corn. The corn where the "Renovator" has been used appears much better both in color and size, than where none has been used, though the land where none has been used is apparently much better than that where the "Renovator" was used.

I consider your "Renovator" a valuable composition, and should my corn continue to improve as it has done I shall be amply rewarded for the expense incurred. I shall certainly use some of your "Renovator" on my wheat this fall.

Yours, &c.

HOWARD DISTRICT, August 17, 1849.

John Kettlewell, Esq.—Dear Sir:

In reply to your favor now before me, I have to state, that having made the trial of your fertiiizer on potatoes and corn, I am much gratified with the result—being confident that where it has been applied, that the yield will be double, independent of leaving the ground in a much better state than it was preparatory to my applying it, and, from the experiment I have made, believe it to be one of the most valuable manures now known; and, as an evidence of my opinion of its fertilizing qualities, you will please send me, as early as convenient, ten barrels, which I was on the point of ordering when your favor came to hand. Nothing new.

With respect, your friend,
PETER GORMAN.

BALTIMORE COUNTY, 1849.

Dear Sir: I have no reluctance to repeat to you what I stated, in a personal interview, a few days ago, that my experiment of your Agricultural Renovator has met my entire expectations, and that I look upon it as an enterprise deeply interesting to the agricultural interests of the State. It is cheap in price, and, in applying it upon corn, in comparison with guano, my experience gives it the preference. I can give you no better evidence of my faith in its qualities as a fertilizer of the soil than in ordering, as I now do, five times the quantity I purchased from you in the spring. That time will confirm your opinion that it will give continued improvement to the land, I have an equal confidence.

Yours, respectfully,
C. S. STANSBURY.

To Messrs. Kettlewell & Davison:

Gentlemen—In reply to your enquiry, how the experiment I made of your chemical Renovator resulted, I take pleasure in saying, far beyond my expectations. I sowed it broadcast, a barrel to the acre, upon poor land, and upon an old sod that had not been ploughed for some years, and planted my corn upon the 12th of May. I repeat, the land was poor; but my corn, thus far, in appearance, has not only astonished myself, but promises a yield which has surprised all of the many who have seen it, the quality of the land taken into consideration; indeed, I know of none in my neighborhood that is better, without any regard to soil. It is scarcely necessary to say, from this demonstration—which I should like every farmer in the State to see—that my confidence in the fertilizing qualities of your salts is stronger than in any manure I have ever tried.

Truly your friend,
JOHN H. KAUFMAN.

Baltimore, August 27, 1849. sep1-1t

FRUIT TREES, GARDEN AND FIELD SEEDS, &c.

TOGETHER with all AGRICULTURAL IMPLEMENTS.

MAXFIELD, MOTT & Co. *Agricultural Implement Manufacturers*, and dealers in Iron, *No. 37 North Paca-st.* 3 *doors south of Franklin*, Baltimore.

Orders for almost every article wanted by the Farming interest promptly attended to, at the shortest notice, and delivered, free of charge to any part of the city.

LEVI MAXFIELD,
NICHOLAS U. MOTT,
T. EDWARD HAMBLETON, Jr.

They will constantly keep on hand, FOR SALE—Atlee & Blithe's Lever Horse Powers and Thrashers, Corn Shellers, Straw Cutters, &c. Edge & Cope's Endless Chain Horse Powers and Thrashers; Pennock's celebrated Pioneer Wheat Drill and Wheat Fan. Also the Delaware Self-Sharpening Premium Ploughs. They are AGENTS for the New York Wiley, Minor and Horton's, and the Empire Plough Castings. jy1

GUANO.

PERUVIAN and PATAGONIAN GUANO just received and now landing.

We are now receiving a large supply of PERUVIAN and PATAGONIAN GUANO, very dry and of superior quality, neatly put up in bags of from 150 to 200 lbs each, with inspector's brand, which we offer to dealers and agriculturists, in quantities to suit, at *very lowest* market rates.

P. MALCOM & CO.,
Dealers in Grain, Seeds, Flour, &c.
aug 1-3t No. 1 Wood street, Bowly's Wharf,

ADDRESS OF THE STATE AGRICULTURAL SOCIETY.

A year ago an appeal was made to you by the officers of the "Maryland State Agricultural Society," for your active co-operation in the means necessary to establish and sustain an institution for the promotion of agriculture, which should be worthy of our State. It is their pleasant duty now gratefully to acknowledge that the appeal was not in vain, and that you have, with a spirit and zeal which forbad failure, come to their aid in every way in which the undertaking could be promoted. To sustain this spirit and to reanimate this zeal, the same body again appeals to you, and they do it with an assured confidence that you will not let a work so fairly begun, languish and die from apathy and neglect. Thus far the most signal success has attended your efforts. A Society has been formed whose list of members, though by no means as large as the worthiness of the subject entitles it to be, embraces a collective force of talent, practical skill and energy, which, directed to any end within the scope of its association, must command success. Under its auspices an Exhibition was held last year, which astonished, by its display, the very people themselves, who had contributed to make it. Through the incentives to emulation held out by it, a number of valuable essays have been given to the world by men who have learned their lesson in the school of experience, and who therefore speak with an authority not to be resisted. Through its provident care for your wants and your convenience, spacious and well furnished rooms have been provided for your resort, where samples of such things, connected with your interest, as may be conspicuous for novelty or their excellence may be found; where you may meet your brother farmers and enjoy an agreeable interchange of thought and courtesy; and where, through an exertion now being made, a library will soon be assembled which will place at your disposal the treasured wisdom of other countries and your own.

These are some of the good results which already flow from an enterprise which has only had its first impulse. But to continue and enlarge them it needs your untiring and persevering aid. It has been the reproach of the past, that serious efforts, analagous to ours, have sprung into bright existence, and after a short and fitful blaze have flickered and gone out, and some, more mindful of the miscarriages of days gone by, than the promise of the future, have predicted such an untimely end for ours. Surely they slander us who think so lightly of our energy and our stability of purpose. We know the value of such an institution, and we know that from a small beginning, with fostering care, it may and will grow to be a source of incalculable benefit. Who, that the farmer, is more accustomed to wait upon the future with implicit reliance on the sequence of effect from cause? He commits the seed to the ground and patiently awaits the germ. He tends the growing plant with assiduous pains until he finally reaps in the golden harvest the reward of his faith and his labor. So let it be with us now. We have planted an institution in whose embryo is foreshadowed a maturity of vigorous usefulness. Let us by our names, and those of others whom we may, by our example or our persuasion, induce to join it, swell its roll till it shall include every farmer in the State. Let us by the cheerful payment of our subscription, so enrich its treasury that it shall lack no means to promote the good of agriculture. Let us, in generous emulation, each send something to its Exhibition to stimulate rivalry in good works, and to shew that we are not so blighted with the curse of mediocrity that we can not be excellent in something. Let us by our attendance at its meetings of business exhibit our interest in its management;—by our advice, assist its councils;—and by our teachings illustrate its transactions. So shall we reap a rich reward for ourselves and our posterity, and elevate still higher a calling, than which, none is more honorable.

CHARLES B. CALVERT, of Prince George's County, *President.*

VICE PRESIDENTS.

Baltimore City—JOHN GLENN,
St. Mary's County—H. G. S. KEY,
Charles County—J. G. CHAPMAN,
Prince George's—HORACE CAPRON,
Calvert—GEORGE WEEMS,
Anne Arundel—WM. C. LYLES,
Howard District—DR. ALLEN THOMAS,
Montgomery—A. BOWIE DAVIS,
Frederick—DAVID W. NAILL,
Washington—WM. DODGE,
Alleghany—Dr. SAMUEL P. SMITH,
Carroll—GEORGE PATTERSON,
Baltimore—WILSON M. CAREY,
Harford—RAMSEY MCHENRY,
Cecil—Rev. JAS. MCINTYRE,
Kent—WM. S. CONSTABLE,
Queen Anne's—JAS. T. EARLE,
Talbot—Col. N. GOLDSBOROUGH,*
Caroline—JOS. PEARSON,
Dorchester—Dr. JOS. E. MUSE,
Somerset—Dr. WM. WILLIAMS,
Worcester—JOHN U. DENNIS,
D. Columbia.—J. H. BRADLEY,

Cor. Secretary, GEO. W. DOBBIN, } *Baltimore.*
Rec. Secretary, SAMUEL SANDS, } *Baltimore.*
Treasurer—GEORGE M. GILL, } *Baltimore.*

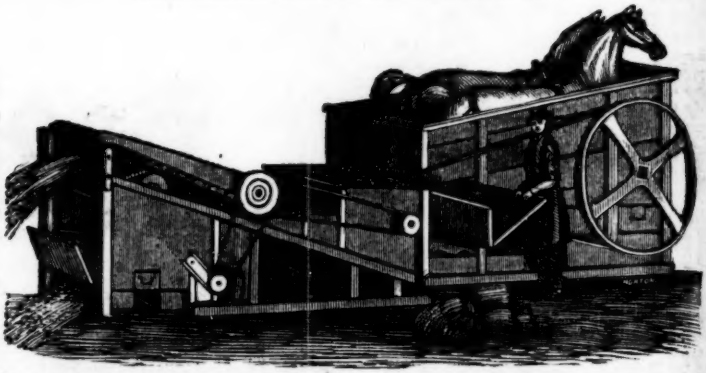
Curators.—W. W. W. BOWIE, of Prince George's; N. B. WORTHINGTON, of Anne Arundel; J. CARROLL WALSH, of Harford; Z. BARNUM, of Baltimore city; CHAS. R. HOWARD, of Baltimore county; MARTIN GOLDSBOROUGH, of Talbot.

*In place of Samuel Hamilton, resigned.

DUTCHESS 34th---The Property of Thomas Bakes, Esq., Kirkleavington, England.

Dutchess 34th is the most splendid cow we ever saw, and we know of nothing that can compare with her, except two three-year olds that we were shown along side of her at Kirkleavington. She is descended from the old stock which has been bred in Durham for two centuries, and has the distinctive mark of the short, fine, clear, *upturned*, waxy horn, peculiar to this superior tribe. She is now nine years old, has had eight calves, and, though repeatedly shown against the best cows in England, has never been beaten. She was offered a few years ago, by her breeder, to come to America, but was declined, as we understand, through the influence of Mr. Whitaker; whether because he was not aware of her merits, or that he thought she would make too fine a show along side of much that he sent out here, we did not learn. Had our breeders possessed her, and a few others, at the time offered, our Short-horn stock now could not be beaten in England; as it is, we must still continue to purchase for improvement.—*American Agriculturist.*

350 THESHING MACHINES FOR SALE THIS SEASON BY E. WHITMAN, JR.



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jun 1 Baltimore, Md.

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☞Price $30 per ton.
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CHURNS.

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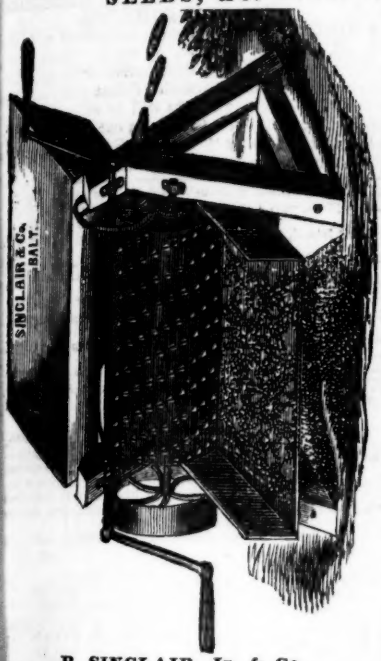

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Minor & Horton's and other New York Plows, made very simple and cheap.

School Plow, Double Mould Board Plow, Barshear, Plow, &c.

Plow and Machine Castings, by retail and wholesale.

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Gentlemen are invited to call and see for themselves, or communicate by mail. Direct to

CLAYTON B. REYBOLD.
Delaware City, Del., July 1, 1849 jy 1-3t*

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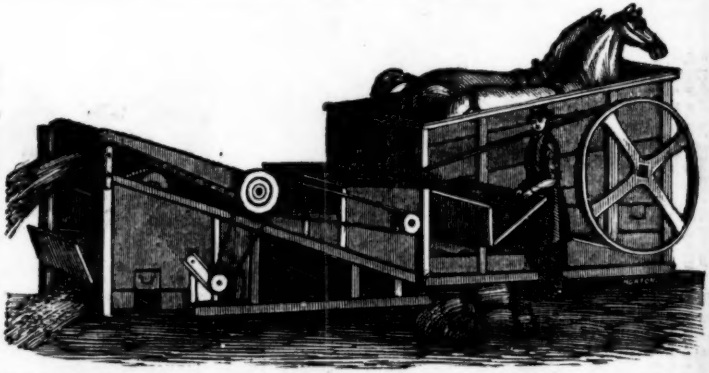

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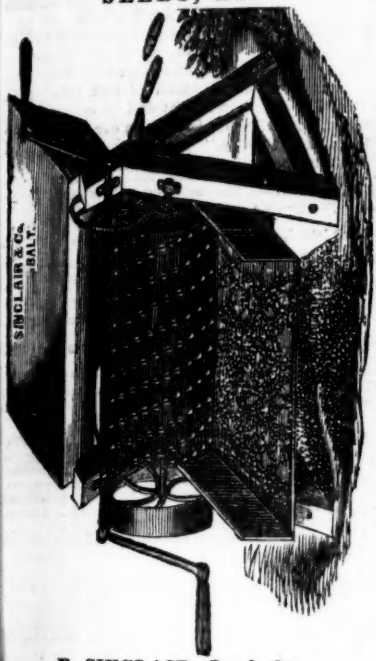

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AGRICULTURAL SALTS.

THE subscribers are now prepared to furnish from the MARYLAND CHEMICAL WORKS, any quantity of this very valuable manure, which they can recommend to be equal if not superior to any in this market.

QUALITATIVE ANALYSIS.

Sulphate of Potash,
" Soda,
" Lime,
" Ammonia,
" Magnesia,
" Alumina,
Biphosphate of Lime,
Hydro Carbonate of Magnesia,
Pex Oxide of Iron,
Alumina,
Vegetable and Animal Charcoal,
Silicate of lime.

Price $3 per bbl. of 300 lbs.

For Sale by ROBERT SINCLAIR, Jr. & Co., Agents,
Or
SAM'L & PHILIP T. ELLICOTT,
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Guano! Guano!! Guano!!!

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Patagonian Guano, ship Hibernia's cargo, in bags and barrels.
Patagonian Guano, of ship Caledonia and Sophie's cargoes, in bags.
Prime new Timothy Seed.
" Clover Seed.
Ground Bones and Ground Plaster.

They guarantee the purity of all guanos passing through their hands; and persons ordering may depend on obtaining it on as favorable terms as tho' purchased in person, and every attention will be given to its proper shipment.

W. WHITELOCK & CO.,
sep1-2t Corner of Gay and High streets, Baltimore.

AGENCY

For the Purchase and Sale of Improved Breeds of CATTLE, SHEEP, SWINE, &c.

I WISH to remind the farmers and planters of the Southern and Western States, that I still continue to purchase and sell improved Stock,—such as Cattle, Sheep, Swine and Poultry, of the different kinds and breeds, ot a very reasonable commission. They will be carefully shipped, or sent away as ordered.

All letters, post paid, addressed to me, at Philadelphia, will be attended to without delay.

sep 1-6t AARON CLEMENT.

Baltimore Fire Insurance Company.

No. 24 South Street, Baltimore.

THIS old established Company (incorporated by the legislature of Maryland, 1807,) continues to *INSURE AGAINST LOSS OR DAMAGE BY FIRE*, in the city or country, on the various descriptions of property: On Farms, Barns, Granaries, &c.—on Dwelling Houses, Storehouses and Warehouses,—on Merchandize—on Country Produce—on Household Furniture—on Building Vessels, on Vessels in Port, and on Cargoes, &c. &c.

The Board of Directors is composed of the following gentlemen: J. I. COHEN, Jr., President.

William Frick,	David S. Wilson,
Robert A. Taylor,	Wm. F. Worthington,
William G. Harrison,	Jas. A. Sangston,
Samuel T. Thompson,	William Gilmor,
George R. Vickers,	J. Pennington,
F. W. Alricks,	Joseph King, Jr.
S. Owings Hoffman,	

☞For forms of application, and any other information, apply at the office, No. 24 SOUTH STREET, where all cases are immediately attended to. Insurance can also be effected for any length of time that the applicant may desire.

**Applications for insurance in the country can be made by letter direct, or through the medium of correspondents of the party, residing in Baltimore. Answers can be promptly given, with all relative information which may be desired. Letters to be addressed to

FRED'K WOODWORTH, Sec'y.
Baltimore, September, 1849. sep 1

NOTICE

TO FARMERS LIVING ON THE BALTIMORE AND OHIO RAILROAD.

I HAVE just effected an arrangement with the B. & O. R. R. Co., by which "CHAPPELL'S FERTILIZER" will be carried hereafter to any of the depots on the main branch of that road as "3d *class*," by which the freight will be *very considerably reduced*. Heretofore, *less* than a car load has been charged as "1*st class*." P. S. CHAPPELL.

Baltimore, September 1st, 1849.

FOR SALE.—A thorough bred Maltese JACK, large and young—for character the best reference can be given.

ISAAC WINCHESTER.
Kent Island, Queen Anne's county, Md., August 13th, 1849.
sep 1-3t

H. DUVALL. G. L. IGLEHART.

DUVALL & IGLEHART,
GROCERS AND COMMISSION MERCHANTS,
No. 78 LIGHT STREET WHARF, between Pratt and Camden sts.
BALTIMORE.

☞They will give their personal attention to the purchase and sale of all kinds of Produce. sep1-1y

SPLENDID COLORED DAGUERREOTYPE PORTRAITS.

By C. W. PURCELL, (late operator for *Broadbent & Cary*)
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